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FINAL

Timber Management Environmental Impact Statement

Sustained Yield Unit 13

UNITED STATES
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BUREAU OF LAND MANAGEMENT

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March 1981

This document constitutes the *Final Timber Management Environmental Impact Statement for Sustained Yield Unit 13.*

The changes suggested by public comments on the draft EIS do not require a major rewrite or additional analysis. Therefore, this abbreviated final consists of a summary, public comments and responses, and errata. This document must be used in conjunction with the draft EIS.

This is not a decision document. A decision cannot be made for at least 30 days after the filing of the final EIS with the Environmental Protection Agency.

We thank all of you who took the time to comment on the draft.

Sincerely yours,

Van W. Manning
District Manager

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DEPARTMENT OF INTERIOR

FINAL ENVIRONMENTAL IMPACT STATEMENT

SUSTAINED YIELD UNIT 13

10-YEAR TIMBER MANAGEMENT PLAN

FEIS 81-13

Prepared by

BUREAU OF LAND MANAGEMENT

UKIAH DISTRICT OFFICE, CALIFORNIA

James B. Ruch, California State Director
Bureau of Land Management

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TIMBER MANAGEMENT ENVIRONMENTAL IMPACT STATEMENT
SUSTAINED YIELD UNIT 13

March 1981

Draft ( ) Final (X) Environmental Impact Statement

1. Type of Action: Administrative (X) Legislative ( )

2. Abstract:

The Bureau of Land Management, Ukiah District, California, proposed in the draft environmental impact statement a 10-year timber management plan for 48,682 acres of public land in Humboldt, Mendocino, Trinity, and Sonoma counties. The proposed action was identified through the Bureau's land-use planning process and was derived from management framework plans for four administrative planning units. The plan would have a 10-year allowable cut of 97 million board feet and would include rehabilitation and stand improvement on 1,460 acres. The allowable cut would provide less than 0.6 of 1 percent of the lumber and wood products employment for the region. Five alternatives to the proposal were analyzed: no action, limited investment, two accelerated harvest, and managed old-growth. This environmental impact statement will be used to revise and finalize four land-use plans and the timber management plan. The most critical issues and impacts, as identified through the scoping process, are the loss of old-growth habitat, the lowering of soil productivity, the social consequences of increased public access, and the lowering of water quality. Less critical issues are recreation, visual resources, wilderness, cultural resources, and local economics.

3. For further information contact:

District Manager
Bureau of Land Management
P. O. Box 940
Ukiah, California 95482
(707) 462-3873

SUMMARY

Introduction

This environmental impact statement analyzes the environmental, social, and economic effects of a Bureau of Land Management-proposed 10-year timber management plan and alternatives on Sustained Yield Unit 13 (SYU 13), Ukiah District, California. The analysis will aid in revising and finalizing four management framework plans and establishing districtwide timber management parameters. The timber production base may be adjusted as a result of this analysis, with a resultant adjustment in the allowable cut figures.

Proposed Action and Alternatives

The proposed action is an intensive 10-year program to harvest 97 million board feet of timber and to perform various rehabilitation projects on 1,460 acres. Intensive management includes precommercial and commercial thinning and hardwood control. The timber production base, a product of both the timber production capability classification inventory and management framework plans, is 48,682 acres.

As a result of public interest, current forestry research, and Council on Environmental Quality requirements, five alternatives are analyzed:

1. No Action. The no action alternative is a historical perspective of timber activities on public land in SYU 13. It would have a 10-year allowable cut of 78 million board feet on a timber production base of 54,247 acres. Because land-use plans and intensive inventory were not completed, the timber base was calculated using the 1974 extensive inventory and applying percentage reductions for multiple-use restrictions and land capability. All other alternatives have a timber production base of 48,682 acres.

2. Limited Investment. The limited investment alternative is timber production on a natural stand basis, which does not include such intensive operations as precommercial thinning, hardwood control, or animal control. It would have a 10-year allowable cut of 65 million board feet, which would increase sharply after the tenth decade.

3. Accelerated Harvest #1. The accelerated harvest #1 alternative is a 10-year accelerated harvest of 105 million board feet, cutting to a minimum harvest age of 70 years. Other allowable cuts have a minimum harvest age of 90 years. After the tenth decade the cut would increase sharply.

4. Accelerated Harvest #2. The accelerated harvest #2 alternative is an accelerated harvest of 146 million board feet per decade for 3 decades,

followed by a sharp decline to about 50 million board feet per decade for 5 decades, then an increase to about 200 million board feet per decade as the forest reaches regulation.

5. Managed Old-growth. The managed old-growth alternative is an intensive timber management plan similar to the proposal, but which sustains a proportion of old-growth components in the stands by carrying 12 trees per acre over two rotations and leaving large woody debris and snags for site maintenance. It would have an estimated 10-year cut of 85 million board feet, which would increase sharply after the tenth decade.

Management of the timber resource in the Ukiah District has reflected the Bureau's commitment to multiple-use resource management. With the enactment of the Federal Land Policy and Management Act of 1976 (FLPMA) (P.L. 94-579), this commitment was reinforced. Due to the Bureau's commitment to multiple-use and the specific direction in Section 102(a)(7) and (12) of FLPMA, the alternative of no timber harvest in SYU 13 was determined not to be a viable alternative. An alternative providing for the extensive use of aerial applications of herbicides was rejected for this 10-year period because it is economically unviable.

Scoping

Major issues and public concerns were determined through scoping sessions with Bureau resource specialists, interested public parties and individuals, and resource management agencies. The critical issues that evolved through this process, in order of priority, are:

1. Wildlife - Maintenance and protection of habitat for old-growth-dependent wildlife species.

2. Soil and Site Productivity - Maintenance of soil for long-term timber production.

3. Access - Both for and against increased public access to public land.

4. Water Quality and Fisheries Habitat - Protection of the fisheries resource through water-quality control.

5. Recreation and Cultural and Sociocultural Resources - Increased public access for recreation and protection of cultural and sociocultural resources from timber management activities and vandalism by the public.

6. Regional and Local Economics - Maintenance of mill output and employment during an anticipated timber shortage in the next 10 to 30 years until timber on industry lands reaches merchantable size.

7. Land Uses - Land uses which conflict with the timber management plan, particularly regarding rural homes near forested public land.

Areas of Controversy

An alternative providing for the extensive use of aerial applications of herbicides was rejected as an alternative for this 10-year period because it is economically unviable. The use of herbicides has not been a normal practice of the forest management program for SYU 13. Herbicide use on a limited scale is planned in the proposal. However, this use would not be obligated in the allowable cut computation. The proposal calls for a hand-applied herbicide release spray on 135 acres of conifer site presently suffering from grass competition. Such an action would be subject to specific design features included in herbicide project plans and guidelines for application. These guidelines are listed in Appendix 2-4, "Site Preparation and Release Specifications for Chemical Treatment - Ukiah District SYU 13 Timber Management Plan." Additionally, such projects would be subject to site-specific recommendations generated from an environmental assessment.

As identified during the scoping and planning process, certain areas of public land within SYU 13 are of particular concern regarding possible forest management activities. For example, many adjacent landowners consider the Gilham Butte management block valuable for scientific and ecological studies. Other concerns are possible water-quality problems and potential watershed damage commonly associated with timber management activities. As a consequence of the Bureau's land-use planning process, approximately 1,700 acres of the Gilham Butte block are proposed in the Scattered Blocks Planning Unit (Maps 2-1 and 2-2) MFP Step 2 for exclusion from the timber production base.

Environmental Consequences

Analysis has shown that there are no appreciable differences in impacts between the proposed action and alternatives. All of the alternatives would permanently remove existing old-growth forests from the timber production base. The managed old-growth alternative would retain approximately 10 percent of the land area for two rotations to provide large woody debris for long-term site productivity. Old-growth-dependent wildlife species, such as the goshawk

and spotted owl, would be adversely affected by the removal of the overmature stands. The managed old-growth alternative would provide some degree of mitigation by providing large trees and snags.

Vegetation composition, stocking, and age would be affected by all proposals. Conifers would be favored over hardwood species, and conifer stocking would increase from about 77 to 90 percent as the forests become regulated. Mature and overmature forests would be replaced by second-growth stands that would eventually be harvested at a minimum age of 90. Genetic diversity would be lost because of inadequate provisions for cone collection by seed zone and elevation. Under the proposal, about 200 acres of productive forest on both private and public land would be permanently lost during the 10-year period due to road construction. However, in the long-run, all of the forest base would have a developed road system, so there would be no difference among the alternatives in land lost to production.

Soil and water quality would be adversely affected by increased erosion and sedimentation due primarily to road construction and yarding. Fisheries would not be significantly affected because of buffers and the scattered ownership pattern.

All of the alternatives provide less than 0.6 of 1 percent of the lumber and wood products employment for the region. Seasonal fluctuations in employment in the timber industries are greater than the employment the BLM could provide under any alternative. Therefore, SYU 13 could not provide enough timber to affect mill operations or employment on a regional basis.

Timber acreage in wilderness study areas or areas under wilderness protest are under interim management. No timber harvest or road building would be done in these areas until a final decision is made by Congress or all appeals are exhausted.

Site-specific environmental assessments will be made for each action. During these intensive investigations, sensitive, endangered, and threatened plants and animals will be identified and any problems resolved in cooperation with the U. S. Fish and Wildlife Service. Cultural resources and sociocultural sites will also be handled on a site-specific basis in consultation with State and local authorities, appropriate Native American advisory groups, and concerned individuals.

Impacts on visual resources are not anticipated to be significant under shelterwood harvesting and existing management framework plan constraints. Site-specific analysis using visual resource management contrast ratings should reduce impacts to acceptable levels in each management class. Recreation that depends on solitude and mature forests would be adversely affected by timber harvest and road building. Recreation dependent on access, such as hunting and off-road-vehicle use, would benefit from the proposal and alternatives.

Mitigation Measures

Mitigation measures were developed as a result of the analysis and are committed as part of the proposal and alternatives. Mitigation measures were developed for:

- Yarding and equipment placement
- Road construction and surfacing
- Log and snag retention
- Seed production areas
- Additional buffers on springs and seeps
- Temporary retention of standing old-growth
- Protective measures for cultural and sociocultural resources

These mitigation measures would reduce the impacts on wildlife, soils, vegetation, and water quality and would reduce the inadvertent loss of cultural and sociocultural resources.

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CHAPTER 2 ERRATA

The King Range Extension Area is not included on Map 2-1 (Page 2-5). See Map 2-2 (inside back cover) for the proper boundary of Sustained Yield Unit 8.

The fourth paragraph under "Roads" on Page 2-12 is deleted and replaced with the following paragraph:

"Spur roads designed exclusively for management activities (no public use) will have a 14-foot subgrade and no ditch. Such spurs will be outsloped during construction, waterbarred, and periodically maintained to prevent damage to the road. Spurs may be blocked with locked gates to prevent unauthorized use. Spur roads that are not needed for management activities, other than for harvest, will have a 14-foot subgrade and no ditch. Such spurs will be outsloped during construction, waterbarred, and not maintained until the next harvest. Drainage structures will be removed and the road fill that crosses streams will be excavated. Spurs will be physically blocked to prevent use."

The Engineering/Construction work-months (WM) on Table 2-3 (Page 2-24) are changed to read: "Proposed Action - 600, No Action - 410, Limited Investment - 340, Accelerated Harvest #1 - 650, Accelerated Harvest #2 - 750, and Managed Old-Growth - 500." Total WMs are changed to read: "Proposed Action - 1,892, No Action - 1,383, Limited Investment - 1,145, Accelerated Harvest #1 - 1,992, Accelerated Harvest #2 - 2,618, and Managed Old-Growth - 1,608."

CHAPTER 3 ERRATA

The last sentence in Paragraph 2, Page 3-9, which reads, "The map is most valuable in differentiating between relatively stable watershed areas and those that are highly unstable and could add considerable sediment to the stream system" is deleted.

The reference source for Map 3-2 (Page 3-13) is U.S. Department of Agriculture, Soil Conservation Service and Forest Service (1970 and 1972) and is included in the References Cited on Page R-10.

The reference source for Table 3-6 (Page 3-47) is EDAWinc (1979) and is included in References Cited on Page R-3.

CHAPTER 4 ERRATA

The third line in Paragraph 2, Page 4-2, under Road Construction and Maintenance is changed to read, "causing rapid aggradation (deposition), streamside sliding, and bank erosion."

The last line in Paragraph 1, Page 4-12, is changed to read, "develop slower (Miller et al. 1976). Too much organic matter would have a detrimental effect."

The first sentence in Paragraph 3, Page 4-15, is changed to read, "The greatest impact on vegetation would be the permanent change of 4,220 acres of virgin forest to second-growth during the next 10 years."

The third sentence in Paragraph 4, Page 4-20, under "Slash Disposal and Site Preparation" is changed to read, "The red-backed mouse is the dominant vole in the old-growth Douglas-fir forest (Franklin et al. 1979)."

CHAPTER 5 ERRATA

Add the following name to the list of reviewers on Page 5-3:

Name:	Michael Aceituno
Job Title:	Fisheries Biologist, BLM, California State Office
Education:	M.S., Fisheries
Experience:	Fisheries Biologist, BLM, 5 years

CHAPTER 6

AGENCIES, ORGANIZATIONS, AND PERSONS RECEIVING COPIES OF THIS STATEMENT

ADDENDUM

Chapter 6 is amended to include the following agencies, organizations, and persons who requested copies and/or commented on the draft timber management environmental impact statement for Sustained Yield Unit 13.

FEDERAL AGENCIES:

U.S. Department of Agriculture, Forest Service, Covelo, CA.
U.S. Department of Interior, Bureau of Indian Affairs, Sacramento, CA.

BLM, Ukiah District Advisory Council:

Alfred J. Barbero, Redwood Valley, CA.
Pete Barnard, Ukiah, CA.
Irvin Brown, Ukiah, CA.
Peter Childs, Miranda, CA.
Gloria Duncan, Fairfax, CA.
Volker Eisele, St. Helena, CA.
Henry T. Snow, Santa Rosa, CA.
Theodore Trichilo, Fortuna, CA.
Mary Waterman, Lakeport, CA.
Samuel M. Winston, Jr., Eureka, CA.

STATE AGENCIES:

Humboldt State University, Wildlife Department, Arcata, CA.
Department of Forestry, St. Helena, Fortuna, Santa Rosa, and Willits, CA.
University of California, Department of Anthropology, Davis, CA.
Colorado State University, Fort Collins, CO.
Indiana University, School of Public and Environmental Affairs, Bloomington, IN.

ORGANIZATIONS:

Institute of Ecology, Indianapolis, IN.
Mattole Institute of Science and Education, Honeydew, CA.
Pacific Lumber Company, Scotia, CA.
RPF Ecological Associates, Evanston, Il.
Simpson Timber Company, Arcata, CA.
Whitethorn Construction, Whitethorn, CA.

INDIVIDUALS:

Katie Barrows, Los Alamitos, CA.
Fred Bauer, Garberville, CA.
Sandi Booth, Fort Bragg, CA.
Tom Camara, Sanford, CA.
Doug Corrington, Garberville, CA.
Kathy Dingman, Willits, CA.
Wes Edwards, Redway, CA.
Joe Erwin, Petrolia, CA.
Fred Euphrat, Sacramento, CA.
Paul Finn, Santa Rosa, CA.
Douglas Fir, Garberville, CA.
John Foster, Ukiah, CA.
Arthur Gafke, Ukiah, CA.
Vicky Gephart Giacomini, Eureka, CA.
Kenneth Goldsmith, Northford, CT.
John Hayes, Redding, CA.
Michael Huddleston, Leggett, CA.
Bud Johnson, Ukiah, CA.
Rick Landry, Garberville, CA.
Kelly Logan, Blue Lake, CA.
Shirley McVoy, Gualala, CA.
Jeannie Malato, Phillipsville, CA.
Larry Malato, Phillipsville, CA.
Jeff Moroso, Redway, CA.
Sally Mullen, Salinas, CA.
Fionna Perkins, Gualala, CA.
Dennis Smart, Ukiah, CA.
Jerry Spellenberg, Orangevale, CA.
Arthur D. Theland, Sr., Native American Archaeological Consultant, Fort Bragg, CA.
Dan Trower, Garberville, CA.
Harold Webster, Eureka, CA.
Daniel Wojoik, Bridgeville, CA.
Lars Zebroski, Eureka, CA.

CHAPTER 7

PUBLIC PARTICIPATION

The Bureau of Land Management published in the *Federal Register* on Monday, July 2, 1979, a notice of intent to prepare an environmental impact statement (EIS) on the timber management program for Sustained Yield Unit 13, Ukiah District, California. The notice also notified the public of the scoping process and dates for two scoping sessions to be held in conjunction with Management Framework Plan (MFP) public meetings. The first MFP meeting was held on September 13, 1979, in Eureka, California. The second MFP meeting was held on September 22, 1979, in Ukiah, California.

The Ukiah District, Bureau of Land Management, held two internal scoping sessions with managers, resource specialists, and the EIS team to identify alternatives, central issues, and agencies, groups, and individuals to be consulted during the scoping process. On August 3, 1979, a letter summarizing the internal scoping sessions was sent to affected Federal, State, and local agencies and other interested groups and individuals. Recipients were asked to respond in writing or arrange a meeting to discuss the proposed statement. Eleven public workshop sessions were held from August 13 to August 31, 1979. On September 27, 1979, after the scoping process was completed, a letter summarizing the results of the entire process was sent to all contacts to date, and additional responses were received.

A news release announcing availability of the draft EIS was issued on September 5, 1980, and sent to all news media in the affected area. On Thursday, September 11, 1980, the Bureau of Land Management's notice of availability was published in the *Federal Register*. On Friday, September 19, 1980, the Environmental Protection Agency's list of available environmental impact statements included the draft EIS on SYU 13.

On September 4, 1980, initial distribution of the draft EIS for SYU 13 was made. A total of 380 copies were distributed through the end of the public review period.

INTRODUCTION TO COMMENTS AND RESPONSES

In accordance with Council on Environmental Quality Regulations for implementing the National Environmental Policy Act (Section 1503.4), the comments received during the period from September 4, 1980, to November 25, 1980, and the responses to those comment are included on the following pages.

The Bureau is responding to comments that require clarification of or changes to statements made in the EIS, or that indicated a misinterpretation of the intent and scope of the EIS. Editorial corrections and minor map errors do not warrant changes. In general, no changes were made in response to differences of opinion between and among professionals and well-informed members of the public. These differences arise in large part from differing interpretations or extrapolations of inconclusive research or inadequate data.

Many of the questions raised during review of the EIS will be answered in a site-specific environmental assessment (Page 2-12). This environmental impact statement does not replace the need for environmental assessments for final clearance of cultural resources or endangered species, for development of additional mitigations, or for improvement of the parameters established in the statement.

Although there is much more information that could be brought forth in this analysis, it would have little or no direct bearing on the identified significant issues. In accordance with 40 CFR 1500.4(a), 1501.7, and 1502.7, this analysis has been prepared with predetermined limitations, and analysis emphasis has been directed towards those issues identified as being truly significant as they relate to the proposed timber management plan for SYU 13 (1500.1(b) and (c)).

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COMMENT LETTER 1

CALIFORNIA TROUT

SAVE THE TROUT STREAMS

P.O. Box 3485 · SAN [illegible]

September 23, 1980

Mr. Dean Stepanek, District Manager
Ukiah District Office
Bureau of Land Management
P.O Box 940
Ukiah, California 95482

Dear Mr. Stepanek:

California Trout is concerned with the State's native trout and steelhead and their habitat. Our comments here, on the Draft EIS on Timber Management, Sustained Unit 13, are confined to this aspect.

Fisheries have been given only superficial, token attention in the Draft as the BLM is preoccupied with timber harvest. In the past, such preoccupation led to terrible damage to salmonids and their habitat. Without special attention to protection of the anadromous salmonid habitat involved here, under BLM management, further fishery damage surely will occur.

1-1 To our concern and surprise, not a single fishery biologist, nor even a representative from an agency primarily responsible for fisheries, is included in the long list of preparers and reviewers of the report.

Pg. 3-26. Nine major streams and many tributaries drain SYU 13, with 27 miles of fish habitat in 43 different streams. The Eel system is most important. We agree that protection of spawning and rearing habitat is vital and that sites of these have not been precisely identified. However, we are positive that fishery information necessary for good management, including that on the three listed categories, can be obtained in much less than "several years of observation" or "5-10 years of population sampling". In any case, protective measures can be implemented during the time needed for study.

In view of the high value of anadromous salmonid habitat as compared to timber values, as recently shown in several USFS reports, to neglect adequate study and protection and restoration of salmonid habitat would be totally irresponsible.

Pg. 4-8. "Individual or specific streams in the immediate area of logging (that) could be severely impacted" should be immediately identified and adequate measures taken to prevent fishery habitat damage.

Pg. 4-9. Sediment yield in the Eel is the highest of any U.S. river. Special care in all land use activities is necessary to prevent severe erosion in this watershed.

1-2 Pg. 4-22. Are 125' and 75' buffer zones adequate to protect fishery habitat? Are there not some streams in areas with steep, unstable slopes where wider buffer zones are needed?

1-3 Pg. 4-24. We do not understand the sentence, "Less than one mile of fisheries habitat is adjacent to timber sales included in the model 10 year timber management plan".

Pg. 4-25. In regard to Eel River summer run steelhead, reference is made to the recent Summer Steelhead Management Plan, Middle Fork Eel River, published jointly by the USFS and California Department of Fish and Game. This document is a model of its kind, and we urge a similar fisheries management plan by the BLM on SYU 13.

We take strong exception to the statement, "there are a number of studies that raise a lot of doubt as to the validity of (the) belief" that sedimentation associated with logging is detrimental to fish. Sediment damage goes far beyond the meager list of the two means listed. This is prima facia evidence of the superficiality and lack of expertise used in preparing the report. River beds are raised and impacted, pool-riffle relationships disrupted, cover and other nursery habitat destroyed or eliminated, water temperatures increased, just to mention a few of the many other well-documented changes. Steam ecosystems, to which salmonids are fine-tuned after eons of adaptation, are radically altered by excess sedimentation from logging, road construction or any other source. To imply that habitat loss is not harmful to species is to ignore such crisis situations as have been allowed to develop with the California condor and numerous other threatened and endangered species. Please note that the USFS has classified California summer steelhead as "sensitive". By no means do we believe that "the final impact on fish is obscure". Contrarily, we see it only too clearly that California's North Coast salmon and steelhead have declined by 60-80% in the past 25 years, and it is well-documented that most of the loss is from habitat loss. While dams, over-grazing and over-fishing are factors, the massive erosional damage from logging and road construction, over thousands of square miles of fragile watersheds, cannot be denied as a major factor in fishery habitat loss. It is a biological maxim that species decline as their habitat is destroyed.

We strongly recommend consultation and cooperation with qualified fishery biologists regarding fishery management of salmonid waters affected by SYU 13. Anadromous salmonid resources, like timber, are valuable and renewable; however, salmonid habitat, once destroyed, may not be renewable and is of higher value than the timber in the same watershed.

To neglect this habitat is wasteful, counterproductive and contrary to the public interest. Fishery management plans are equally as important as timber management plans. Let us have a sustained yield of anadromous fish as well as timber in Sustained Yield Unit 13.

Sincerely,

Herbert L. Joseph, Chairman
Steelhead Committee

HLJ/aj
CC: Rusch
Hunter

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COMMENT LETTER 1. California Trout, San Francisco, Ca.

1-1 Issue: Fisheries input.

Chapter 5, Preparers and Reviewers, Page 5-2, Staff Support, includes a Fishery Biologist. A Fishery Biologist in the Bureau of Land Management State Office also reviewed the fisheries sections of this statement. See the Chapter 5 Errata for State Office expertise.

1-2 Issue: Stream Buffers.

As stated on Page 2-12, first paragraph, "Site-specific interpretation of these design features will be considered on a case-by-case basis and modified as necessary to reduce anticipated impacts." The site-specific environmental assessments prepared on all timber harvest and forest rehabilitation projects will include an analysis of fish habitat. As stated on Page 2-14, first paragraph, "Buffers will be a minimum width of 125 feet (horizontal distance)...." Buffer strips can be adjusted at the time of the site-specific assessment to account for special problems. The timber production capability classification (TPCC) forest inventory excluded excessively steep areas from the timber production base, including inner gorges, highly erodible soils, and slump areas. Horizontal measurement of buffer strips accounts for variation in slope. Geotechnical investigations will be conducted on all road locations to help ensure stability and avoid wasting (Committed Mitigation, Page 2-26). There will be 100-foot buffers around known slide areas (Page 2-26) and 75-foot buffers along intermittent streams (Page 2-14).

In a study of 62 northern California streams using invertebrates as an indicator of stream health, Erman et al. (1977) found that, "Streams with buffer strips of at least 30 meters wide have invertebrate populations and physical characteristics indistinguishable from unlogged streams. Streams with less than 30 meter buffers show the same impacts as streams without protective measures."

1-3 Issue: Fisheries habitat.

The statement means that less than one mile of stream(s) inhabitated by fish occur within the boundaries of the proposed 10-year timber sales.

COMMENT LETTER 2

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

Reply to:

Lake Plaza South, Suite 616
44 Union Boulevard
Lakewood, CO 80228

October 2, 1980

District Manager
Bureau of Land Management
Ukiah District Office
P. O. Box 940
Ukiah, California 95482

Dear Sir:

On August 28, 1980, the Council received your request for a Memorandum of Agreement for the Bureau's Ten Year Management Plan for public lands in Humboldt, Mendocino, Trinity, and Sonoma Counties, California. We have reviewed the preliminary case report submitted with your request and will proceed with the consultation process set forth in Section 800.6 of the Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800).

In telephone conversations with Jeff Bingham of the California State Historic Preservation Officer's staff, it is clear that we both believe that sufficient information has been provided to develop an acceptable Agreement. Although we have begun drafting an Agreement, it has not been completed due to other priorities. Upon the completion of the Agreement, it will be forwarded to your office for your review and approval. Thank you for your continued cooperation and patience.

If you have any questions, please do not hesitate to call Mr. Charles M. Niquette of the Council staff at (303) 234-4946, an FTS number.

Sincerely,

Louis S. Wall
Chief, Western Division
of Project Review

17

COMMENT LETTER 3

21 October 1980
Shelter Cove Star Route
Whitethorn, California
95489

District Manager
Bureau of Land Management
555 Leslie Street
Ukiah, California 95482

Dear Sir,

3-1 As you may be aware, on 30 September 1980 President Carter signed legislation setting up a federal - state planning process, to help conserve wildlife species that do not come under laws concerning game and endangered species. This new law possibly may have important impacts on wildlife management relative to timber management in SIU 13. If so, I shall greatly appreciate it if your office will prepare and circulate a supplement to the Draft Sustained Yield Unit 13 Timber Management Environmental Impact Statement. Non-discretionary authority for such action is to be found at 40 CFR 1502.9(c)(1)(ii).

Thank you for your consideration of this request.

Sincerely,

Robert Sutherland

Robert Sutherland.

cc:
State Director, BLM
EIS Team Biologist, Ukiah District
Redwood Chapter, Sierra Club
Natural Resources Defense Council
EPIC

RESPONSE LETTER 3

COMMENT LETTER 3. Robert Sutherland, Whitethorn, Ca.

3-1 Issue: Nongame Fish and Wildlife Conservation Act

Public Law 96-366 (The Fish and Wildlife Conservation Act of 1980), enacted on September 19, 1980, pertains to a cooperative planning effort between the Fish and Wildlife Service (FWS) and the various State Fish and Game agencies. This act authorizes the FWS to apportion 20 million dollars over four years to State Fish and Game agencies for nongame purposes. The State agencies inventory nongame species, assess their problems, and develop conservation plans and implementation procedures for those plans. Funding is available for State agency nongame fish and wildlife conservation plans submitted to and approved by the FWS.

Considerations of adverse impacts on nongame species as a consequence of implementing the proposed action or the other alternatives was specifically addressed in Chapter 4 of the analysis. However, in accordance with 40 CFR 1500.1(b) and 1501.7(3), and as stated on Page 3-21, the major emphasis for this analysis was directed towards old-growth and mature forest habitats and their attendant species.

Future timber management actions in Sustained Yield Unit 13 will give full consideration to conservation plans approved by the FWS in accordance with Public Law 96-366.

Lanard Stull
9056 Pecor Way
Orangevale, Ca
95662

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, Calif. 95482

Dear Sir:

I am an interested citizen and as such am submitting comments on the Draft ES for SYU 13. My comments follow and are referenced to page numbers within your draft ES.

Page 2-8

4-1 During the TPCC process and allowable cut determination were those CFI plots that had been put in areas deleted from the timber production base deleted from the CFI inventory data prior to the computation of the allowable cut?

Page 2-10 STANDARD MANAGEMENT

4-2 "prompt regeneration capability" Will these lands be regenerated promptly? How will you know if they are regenerated promptly and fully? Will surveys be done? At what frequency? Will funding and positions be made available to do them? After being harvested and regeneration is not prompt will these lands be moved into Remedial Management status? Are there any Standard Management lands in SYU-13? If so can you list them for me?

Page 2-11

4-3 "ten percent of the total basal area of future stand is claculated to be a hardwood component" Is this the target or actual condition after harvest? If this is a target which I think it is at what point in the rotation is it a target? Is Hardwood control or conifer release part of the allowable cut formulation? If not it really should be. How do you propose to obtain "adequate stocking within five years"? Will there be adequate surveys to keep abreast of this? What is to be done about Backlog of understocked areas that were cut over in the past? Will there be funding and personnel positions to eliminate this backlog of unregenerated cutover lands? What method and criteria was used to determine a rotation age of 90 years?

COMMENT LETTER 4

Page 2-12 ROADS

4-4 What are "appropriate drainage structures? Please define what "appropriate" means. If culverts are installed will they have downspouts and energy dispaters? Will they be maintained adequately or left to plug up then be cleaned out after the damage has been done? Road width seems rather wide 16 feet with 4 foot ditch seems this will take an awful lot of land out of production. Why not build roads with a 12 foot bearing surface and a ditch only where necessary?

Page 2-13

4-5 "revegetated where necessary" What is your criteria for "Where necessary"? Will it be done after the fact or before problems occur? Who will determine where necessary? Only sloughing areas will be treated? How about soils that are susceptable to sheet or dry ravel erosion? What is a "significant fisheries resource"?

page 2-15 Regeneration

4-6 The allowable cut formulation section says "adequately stocked within 5 years". What is adequately stocked? What is "promptly regenerated?" The paragraph seems to say that regeneration surveys will be made only before final harvest why? Will regeneration surveys be done at other times to have "adequate stocking of conifers within 5 years after initial entry"? What are your plans for release of conifers from competing vegetation? I believe it will be impractical to achieve a 90 year rotation if your crop trees are delayed 30-50 years by competing vegetation.

page 2-14

4-7 The buffer will be measured "from the edge of the stream". Is this high water or low water? Please define perenial and intermittent streams.

page 2-18

I think that you should say politically not a viable alternative. I think you will get a lot of arguments that it is economical.

4-8 Would no Timber Harvest be an alternative to the proposal?

All in all I feel you have done a quite good job on preparing this ES. I thank you for the opportunity to comment on it.

Sincerely

Lanard Stull

RESPONSE LETTER 4

COMMENT LETTER 4. Lensrd Stull, Orangevale, Ca.

4-1 Issue: Allowable cut.

To maintain statistical reliability, the Continuous Forest Inventory (CFI) plots that fell on TFCC-withdrawn land were not removed from the allowable cut computations. CFI plots that fell on low site or noncommercial forest were removed from the computations.

4-2 Issue: Standard Management/Regeneration.

Stocking surveys are done one year and three years after planting. If regeneration difficulties are encountered on standard management lands, they will be reclassified as remedial. These management classifications are for planning purposes and to define what activities may occur. SYU 13 has standard management lands, but a list is not available.

4-3 Issue: Allowable cuts.

The ten percent hardwood component is a target throughout the life of a stand. Hardwood control and precommercial thinning are part of the allowable cut computations (Page 2-11). Artificial regeneration (planting) will augment the natural regeneration under a shelterwood cut. Backlogs are currently being identified and will be regenerated as appropriate stock and funds for planting become available. Ninety years is not a true rotation but a minimum harvest age for modeling purposes. This age provides sawlogs in a fairly short time.

4-4 Issue: Roads - drainage structures.

The appropriateness of drainage structures will be determined on a site-specific basis with some variables being soil, gradient, intended road use, and drainage area. Some culverts will have trash collectors, downspouts, and energy dissipators and will be designed to minimize maintenance. Structures that require a lot of maintenance would present problems under any of the alternatives. Most roads designed as main roads must be able to safely accommodate year-long traffic as well as logging trucks and large yarding equipment.

4-5 Issue: Roads - Revegetation.

Revegetation of cuts and fills will be based on such factors as soils and gradient and will be done where it is determined that revegetation will reduce potential soil loss. Cuts and fills will not be indiscriminately seeded or hydromulched in areas where experience has shown that revegetation will not be effective or would be unnecessary. As stated on Page 2-13, the intent is to mitigate possible adverse impacts to the fisheries resource. A determination of significance as it applies in the analysis process for the National Environmental Policy Act is detailed in 40 CFR 1508.27.

4-6 Issue: Regeneration.

BLM Manual 5705.21B indicates that a minimum of 80 percent of a treatment area is to be stocked with suitable trees. This is the criteria for determining adequate stocking. As indicated in BLM Manual 5705.2, a determination of stocking adequacy is dependant on regeneration surveys. These surveys allow for initial treatment, post treatment, and nontreatment surveys. These surveys allow for a determination of adequacy and timeliness of regeneration efforts. During the 10-year period of this timber management plan, as indicated by Table 2-2 on Page 2-23, Timber Stand Improvement (TSI) and grass control operations are proposed to release conifers from competition.

4-7 Issue: Stream buffers.

Measurement will begin from an obvious stream bank or topographic break. Definitions of perennial and intermittent as used in this analysis are found in the glossary.

4-8 Issue: No timber harvest alternative.

Specific direction in the Federal Land Policy and Management Act of 1976, as mentioned on Page 2-17 in the draft EIS, has resulted in a determination that the no timber harvest alternative is not viable for Sustained Yield Unit 13.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PACIFIC SOUTHWEST FOREST AND RANGE EXPERIMENT STATION
Redwood Sciences Laboratory
1700 Bayview Drive
Arcata, CA 95521

November 3, 1980

Dean Stepanek - District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, CA 95482

Dear Mr. Stepanek:

Thank you for the opportunity to review the Draft EIS on Sustained Yield Unit 13.

I have very quickly reviewed the sections relating to soils and water and would like to submit a few brief comments. I am enclosing three manuscripts currently in press which you may not have seen, but which contain locally derived information that bears directly on the EIS sections on soils and water.

There is discussion throughout the EIS on the influence of vegetation on slope stability. The manuscript "Roots and the Stability of Forested Slopes" is based on data collected near Arcata and Hoopa. The root strength and root biomass changes should be applicable to much of the Ukiah District. You may find of particular interest the relative strength of brush and conifer roots and the rate of recovery of root biomass in clearcut blocks which were invaded by Ceanothus. The sequence of brush occupying clearcut units is typical in northwestern California and is a major factor to be considered in both silvicultural and slope stability analyses.

The manuscript "Some Effects of Silvicultural Options ---" discusses the anticipated influence of clearcut, shelterwood, and selection systems on root reinforcement and is applicable to page 4-5 of the EIS. Also on page 14 of my manuscript begins a brief discussion of the interaction of timber harvest/ground water (pore pressure)/ slope stability. I believe these processes are an important aspect which should be considered in this EIS. Timber cutting reduces evapotranspiration which will increase antecedant soil moisture levels. Consequently less precipitation may be required to bring the slope to saturation thereby reducing the effective normal stress to a critical level, increasing the probability of slope failure.

The third paper "Road Building and Logging Influence Stormflow ---" reports another aspect of our study at Caspar Creek. These results support the discussion in the EIS on water yield and are directly applicable to the Ukiah District.

6200-11 (1/80

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COMMENT LETTER 5

I had difficulty reconciling table 3-2 and map 3-2. I believe the map needs to be revised. It would help if the source of data in map 3-2 was provided and units other than acre feet/square mile were used.

Some of my difficulty can be seen in comparing, for example:

	Table 3-2	Map 3-2	
	($T/mi^2/yr.$)	(ac. ft./mi^2/yr.)	($T/mi^2/yr.$)
M.F. Eel	4,000	8.4	13,500
Van Duzen	6,058	3.0	4,800

In table 3-2 there are 2 locations for the S.F. Eel, 2 for the M.F. Eel, and 3 locations for the Eel. This leaves the reader confused. I suggest these locations be specified as in table 3-1.

5-1 When the "sediment yield" is divided into subbasins as in map 3-2, the yield from the upper basin should be subtracted from the total to obtain that for the lower basin. For example, I seriously doubt the sediment yield from the Eel below South Fork is greater than that above South Fork. It is true the total sediment transported is greater, but I believe the yield from the lower subbasin should be less than from the upper.

It is not clear whether the sediment data reported is suspended sediment discharge or total sediment discharge (suspended plus bedload). I suspect table 3-2 is suspended load. Table 3-3 is suspended load only. I am uncertain about map 3-2. In any event, total sediment discharge is the appropriate data if one is concerned with land use changes and channel aggradation.

There should be some expanded discussion of the influence of management on these figures. For example, much of the Eel sediment is derived from massive deep-seated earth flows which are not forested, whereas the Mattole has more of the land in forest.

If you or your staff would like to discuss my comments in greater detail, please call upon me at (707)822-3691.

Sincerely,

ROBERT R. ZIEMER
Principal Hydrologist

Enclosures (3)

COMMENT LETTER 5. USDA, Forest Service, Pacific SW Forest and Range Experiment Station, Arcata, Ca.

5-1 Issue: Map 3-2 and Table 3-2 - Sediment.

The reference source for Map 3-2 is U.S. Department of Agriculture (1970 and 1972) and is included in the References Cited on Page R-10. See Chapter 3 Errata.

The information in Table 3-2 is included in the statement as examples of normal sediment discharge from North Coast watersheds. It is included for comparison of various North Coast streams.

You are correct in stating that sediment coming off the lower subbasins should be less than from the upper subbasins.

Map 3-2 shows total sediment transported in the stream systems. The last sentence in Paragraph 2, Page 3-9 is deleted. See Chapter 3 Errata.

Tables 3-2 and 3-3 both show suspended sediment load, the major water quality problem in North Coast streams caused by timber harvest.

Resources Building
1416 Ninth Street
95814

(916) 445-5656

Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Boating and Waterways
Department of Parks and Recreation
Department of Water Resources

EDMUND G. BROWN JR.
GOVERNOR OF
CALIFORNIA

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

Air Resources Board
California Coastal Commission
California Conservation Corps
Colorado River Board
Energy Resources Conservation
and Development Commission
Regional Water Quality
Control Boards
San Francisco Bay Conservation
and Development Commission
Solid Waste Management Board
State Coastal Conservancy
State Lands Commission
State Reclamation Board
State Water Resources Control
Board

1980 NOV 6 1

Mr. Ed Katles
District Manager
Bureau of Land Management
Post Office Box 940
Ukiah, CA 95482

Dear Mr. Katles:

The State of California has reviewed the draft EIS, Timber Management for Sustained Yield Unit 13, submitted through the Office of Planning and Research in the Governor's Office. Our review, in accordance with the provisions of Office of Management and Budget Circular A-95 and the National Environmental Policy Act of 1969, was coordinated with the Departments of Conservation, Fish and Game, Forestry, Parks and Recreation, Water Resources, and Health; the Air Resources, Solid Waste Management, and State Water Resources Control Boards; and the Coastal and State Lands Commissions.

The Department of Fish and Game (DFG) finds the report lacking in its commitment to acceptable mitigation of damages to fish and wildlife resources. Consequently, DFG recommends that BLM revise the report so that fish and wildlife resources receive equal emphasis with timber. BLM's "accepted" mitigation measures (Chapter 2) are inadequate to reduce adverse impacts to acceptable levels as required by NEPA and CEQA. DFG recommends that BLM implement the mitigation measures presented in Chapter 4 of the report as minimum standards for fish and wildlife protection. Chapter 4 presents some very good mitigation measures (e.g., for old growth and roads) which are considerably more suitable than those in Chapter 2. Since Chapter 2 neither identifies fishery or water quality impacts, nor recommends mitigation, it appears that BLM does not intend to implement any measures to reduce the project's adverse impacts upon these two valuable resources.

DFG has the following specific comments to support its contention that Chapter 2 is inadequate in its proposed mitigation:

1. The proposed action does not document what will be undertaken in remedial management. There should be an assessment of impacts of the monotypic forests that will result in these areas. (6-1)

2. The allowable cut states that some hardwoods will be left. Hardwoods that are good mast producers should be more than 90 years old and thus require retention over at least one rotation. (6-2)

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3. Buffer strips are not adequate to protect aquatic resources -- a uniform width is inappropriate when considering soils, slope, steepness, erodibility, and vegetative cover. The buffer strips should vary from a minimum of 100 feet on each side of the stream up to the entire inner gorge area on steep, erodible soils. (6-3)

4. The section on herbicides should include a discussion of the truncation of vegetative succession and mitigations should be proposed. (6-4)

5. Mitigation measures listed in Table 2-4 should be improved as follows: (6-5)

   a. Page 2-28 - Stand Management. 20 acres of old growth is too small to benefit obligate (dependent) species. The cutting cycles should be staggered and the ultimate monotypic forests resulting from intensive management must be dealt with.

   b. Page 2-28 - Sensitive Species. 300 acres of excellent habitat is the minimum necessary to support a pair of spotted owls. This target acreage should not be reduced unless BLM receives written assurances that adjacent landowners of similar habitat will maintain their lands for spotted owls in conjunction with adjacent BLM lands.

      Inactive territories should receive better management direction from BLM. It appears that the agency will only provide a biannual survey as a management activity. DFG recommends that these areas be maintained for five to ten years after becoming inactive.

      The concept of "where encountered" for many species listed in this section is inappropriate. Wildlife should be managed on a habitat basis.

We greatly appreciate having been given an opportunity to review this report. Question regarding DFG's comments should be directed to John Hayes, 623 Cypress, Redding 96001 (Humboldt, Del Norte, or Trinity Counties) or Theodore Wooster, Post Office Box 47, Yountville 94599 (Mendocino, Sonoma, or Lake Counties).

Sincerely,

James W. Burns

JAMES W. BURNS
Assistant Secretary for Resources

cc: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
(SCH 80091002)

COMMENT LETTER 6. The Resources Agency of California, Sacramento, Ca.

6-1 Issue: Remedial management.

In most cases managed forests will be more monotypic than they are at present but will vary depending on their present species composition and the alternative chosen. As stated under Allowable Cut Calculation, Page 2-11, the goal for future stands is 10 percent hardwoods along with various desired conifers. Without the use of herbicides (Page vii) and with the high cost of labor, it will be difficult to control hardwoods, particularly in remedial stands. Wildlife mitigation (Pages 2-27 through 2-30) will apply to remedial stands, including a minimum positive commitment to hardwood retention. Many of the timber stands are small and surrounded by various vegetation types and vegetation in various stages of succession. It is acknowledged that all of the intensive timber management alternatives would result in the reduction of habitat quality for species that prefer more open forests and depend heavily on food produced by hardwood trees.

6-2 Issue: Hardwood retention.

Wildlife mitigation (Page 2-28) requires that a biologist select hardwoods for retention on a case-by-case basis. The intention is that the best trees be selected. It is not intended or implied that trees selected for retention be removed at or before 90 years of age.

6-3 Issue: Stream buffer strips.

See response to Issue 1-2.

6-4 Issue: Herbicides.

Herbicide use during the 10-year period would impact only small areas of forbs and grasses competing with individual tree seedlings. The actual area of proposed treatment is quite small, so the effects on vegetative succession would be negligible. Mitigations over and above the herbicide parameters contained in Appendix 2-3 will be determined by a site-specific environmental assessment.

RESPONSE LETTER 6

6-5 Issue: Wildlife mitigation.

Twenty-acre reserves are not intended to provide suitable habitat for the most "obligate" species. This is a more general recommendation aimed at retaining habitat diversity and some forest habitat in areas where forests are isolated (Page 2-28). According to Solis and Toth (1979), areas of approximately 20 to 25 acres include the territories of many species that occur in the mixed evergreen forest type. Areas occupied by the more sensitive obligate species, such as the spotted owl and goshawk, would be larger (Page 2-28 and 2-29).

COMMENT LETTER 7

Dear Sir,

7-1 We are Thrilled with your decision To exclude Gilham Butte from the timber productive base (Sustained Yield Unit 13 - Timber Management Environmental Impact Statement). Preserving The water shed, adds important Recreation To The sight of old-growth Douglas fir.

Thankyou

Mr & Mrs Dennis Bourassa
P O Box 119
Miranda, CA 95553

RESPONSE LETTER 7

COMMENT LETTER 7. Mr. & Mrs. Dennis Bourassa, Miranda, Ca.

7-1 Issue: Gilham Butte, exclusion from timber base.

For clarification, as mentioned in the Summary on Page vii, Paragraph 2 under Areas of Controversy, "As a consequence of the Bureau's land-use planning process, approximately 1,700 acres of the Gilham Butte block are proposed in the Scattered Blocks Planning Unit (Maps 2-1 and 2-2) MFP Step 2 for exclusion from the timber production base." As stated on Page 2-4, Paragraph 4, "two of the MFPs (Red Mountain and Scattered Blocks) do not have completed land-use allocation decisions (MFP Step 3)." Also on Page 2-4, last paragraph, it is stated that this statement is not a site-specific land-use allocation or timber sale plan, but rather a tool in the decision-making process. Actions or decisions for the timber program as well as land-use allocations are subject to final decisions as a consequence of the Bureau Planning System.

COMMENT LETTER 8

P.O. Box 4574
Redway, CA 95560
November 14, 1980

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, CA 95482

Dear District Manager:

I am a concerned property owner living adjacent to Gilham Butte patiently waiting for soil erosion in this area, caused by abusive logging practices, to abate and reclaim itself.

I am encouraged to learn that the Bureau of Land Management is tentatively recommending the preservation of Gilham Butte by excluding it from the timber production base for the future 10-year program.

Should this be enacted, I feel that the majority of Humboldt County residents will be benefited of their environmental rights.

Sincerely,

Donald Borthwick

Donald Borthwick

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

Project #D-BLM-K65041-CA

13 NOV 1980

Dean Stepanek, District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah CA 95482

Dear Mr. Stepanek:

The Environmental Protection Agency (EPA) has received and reviewed the Draft Environmental Impact Statement (DEIS) titled UKIAH DISTRICT OFFICE TIMBER MANAGEMENT.

The EPA's comments on the DEIS have been classified as Category LO-2. Definitions of the categories are provided by the enclosure. The classification and the date of the EPA's comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal Actions under Section 309 of the Clean Air Act. Our procedure is to categorize our comments on both the environmental consequences of the proposed action and the adequacy of the environmental statement.

The EPA appreciates the opportunity to comment on this DEIS and requests five copies of the Final Environmental Impact Statement when available.

If you have any questions regarding our comments, please contact Susan Sakaki, EIS Review Coordinator, at (415) 556-7858.

Sincerely yours,

Sheila M. Prindiville
Acting Regional Administrator

Enclosure

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COMMENT LETTER 9

Water Quality Comments

1. The DEIS states on page 4-69 that "Mass movement and other types of erosion caused by road construction and yarding are irreversible. While much of the soil would be moved downslope and remain available for use by vegetation, about 7,340 tons of sediment would enter the stream system and be unavailable for plant use. Therefore, there would be irreversible losses of soil and nutrients that could adversely affect not only site productivity for tree growth but also water quality and fisheries habitat."

   Additionally, page 4-7 states that "Under the proposed management plan, about 51,930 tons of soil could be eroded because of yarding and 14,825 tons by road construction and reconstruction." The FEIS should assess
9-1 the adequacy of the current mitigation strategy to limit the deposition of sediment to the stream system. EPA suggests that additional mitigation measures may be needed to adequately protect water quality.

2. The FEIS should contain a discussion of the relationship between the proposed management plan and the water quality management plan developed by BLM pursuant to Section 208 of the Clean Water Act. This plan, which was approved by EPA on December 19, 1979, includes Best Management Practices (BMPs) for grazing and recreation. It is
9-2 EPA's understanding that BMPs for mining, silviculture, roads and construction, and wildlife management were to be developed by BLM as a continuation of Section 208 planning. The FEIS should provide an updated version of BMPs for the areas listed above. Also, the FEIS should incorporate any newly developed BMPs into the mitigation strategy. Consistency of the proposed management plan with the water quality management plan approved by EPA must be demonstrated in the FEIS.

3. The DEIS states on page 4-9, "The proposal includes the application of herbicides and nitrogen fertilizer to small areas. Washing by rainwater, leaching, or wind
9-3 drift could spread these chemicals into adjacent areas or streams." The FEIS should contain an expanded discussion clarifying the anticipated impacts resulting from these activities and list measures designed to mitigate any adverse effects.

COMMENT LETTER 9

EIS CATEGORY CODES

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objection to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

RESPONSE LETTER 9

COMMENT LETTER 9. Environmental Protection Agency, San Francisco, Ca.

9-1 Issue: Water Quality.

The adequacy of current mitigation in limiting the deposition of sediment into the stream system will be assessed in a site-specific analysis. Page 2-12 discusses the need for site-specific interpretation of each discrete timber management activity.

9-2 Issue: Clean Water Act.

The Bureau's approach to developing Best Management Practices (BMPs) is to do so on a site-specific basis rather than in broad generalities. According to BLM's Section 208 report, "...it became evident that in order for any recommended management practices to satisfy the intent of the Clean Water Act they (BMPs) would have to be developed on a site-specific basis" (USDI, BLM 1979a). Parameters and mitigations presented in the draft statement are districtwide BMPs. These will be modified where necessary on a site-specific basis.

9-3 Issue: Herbicides and nitrogen fertilizer.

Anticipated impacts from the application of herbicides and fertilizer will be considered in greater detail in the site-specific environmental assessment. Guidelines to mitigate adverse effects are listed in Appendix 2-3. Those guidelines can be more narrowly defined for specific sites.

Salmon Creek
4 November 1980

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, California 95482

Dear Sir:

10-1 I would like to commend highly the Ukiah District Office for its decision to exempt the Gilham Butte scattered block from timber harvest plans. I know that it was not your initial intention and that it was in response to citizens' pleas that you decided to reconsider. Like few other governmental institutions in my acquaintance, the Ukiah District Office made repeated and sincere efforts to elicit public comment, with sometimes disappointing results. I was particularly impressed with Bill Rus, whose integrity and carefulness seem largely out of character with our time, and so all the more precious; and Stan Whitmarsh, whose subtle encouragement let us know we had a friend within. For those of us in the neighborhood of Gilham Butte who have been asking for its protection these past several years, this decision by the BLM confirms that at least sometimes governmental policy can be affected by those outside traditional circles of power and influence.

I can't presume to speak for the animals, plants, and trees that grow on Gilham Butte, but I imagine that if they knew what you've decided to do with their home, they would also thank you. Thanks again for heeding our appeals.

In appreciation,

Mark Sommer

Mark Sommer
Box 648
Miranda, California 95553

COMMENT LETTER 10. Mark Sommer, Miranda, Ca.

10-1 Issue: Gilham Butte.

See response to Issue 7-1.

November 15, 1980
Harris, California

We the undersigned are residents and landowners of the Tom Long Creek watershed (R. 5E., T. 5S.)

We consider the proposal to harvest timber on the BLM parcel in our watershed a detriment to the integrity of the watershed as an ecosystem and a threat to our private lands which lie below it.

We strongly recommend that this 400 acre BLM parcel be designated a natural area as described in the Timber Management Environmental Impact Statement. This parcel is the only remaining old-growth in the watershed, with the exception of a small stand owned by Eel River Sawmills. According to the EIS, "One of the primary goals of the natural area program is the preservation of the representative samples of all ecosystems. The major endangered ecosystem that could be impacted by the proposed action is the mixed evergreen forest. Areas containing an old-growth Douglas-fir ecosystem of significant size (300-900 acres) are becoming increasingly rare in the Coast Range, especially at the low elevations in the outer Coast Range." (EIS p. 3-32) This parcel is one of those rare areas.
In addition, the increased erosion and baseflow resulting from good logging practice could jeopardize the stability and progressive recovery of our private lands downslope and downstream. The springs which we depend on for our life here will be affected by cutting of timber on that parcel.

30 11-1 We urge you to re-evaluate your decision and reclassify this parcel as a natural area.

Mary Shayne Harris, Star Rt Garberville, Ca.
Edward Krebs PO Box 371 Garberville Cal 95440
Gaily Mansfield [illegible] Garberville, Cal.
Dimitri Cosmos POE 431 Harris Garberville
Yanne Bloemen POB 431 Garberville Ca 95440
Stephen Ellen Harris Star Rte Garberville, CA 95440
Carl Ellen Harris Star Rt Garberville, CA 95440
John Rose 5th Rte. Harris Garberville Ca. 95440
Tony Osborn Harris Star Rt Garberville CA 95440
Pat Dockery 5/2 Harris Garberville, Ca. 95440
[illegible] [illegible] Garberville CA 95110
Stuart Shayne Harris Star Rte Garberville, 95440

COMMENT LETTER 11. Multiple signatures, Harris and Garberville, Ca.

11-1 Issue: Tom Long Creek.

The public land parcels in the Tom Long Creek watershed are part of the Red Mountain Planning Unit. Although some of the productive forest land parcels in that area are identified by Map 2-2 as being capable of sustained yield of forest products, final land use allocation decisions have yet to be made. As stated on Page 2-4, Paragraphs 3 and 5, the Red Mountain and Scattered Blocks planning units have only proposed land-use designations at this stage of the planning process.

COMMENT LETTER 12

To whom it may concern -

As a resident of Moth. West Mendocino county - I would like to support the exclusion of Gilham Butte from the timber production Base of the Timber Management Environmental Impact Statement.

There are very few old-growth Douglas fir ecosystems of significant size in the Coast Range - Please allow Gilham Butte to remain a habitat for wildlife - don't let it become "productive forest land."

Sincerely
Sandra Tilles

COMMENT LETTER 13

11/19/80

Dear District Manager -

I want to commend you on the Thoroughness of the Draft Environmental Impact Statement for SYU-13.

In comparing The Proposed Action with the Alternatives, it became clear to me that the Old-Growth Alternative should be recommended. The report points out that Managed Old Growth is least harmful to soil erosion and wildlife habitat, water quality, and species regeneration.

13-1 I am very pleased that Gilham Butte has been removed from the the Timber Production Base and I urge you to recommend the establishment of the other 18 Reserves being considered for "Natural Areas." We must preserve the few remaining stands of virgin forest so our children & their children can

experienced nature unmarred by man and machine.

Contrary to the report, there are born Bald and Golden Eagles living in SYU-13. These Eagles and the Spotted Owls deserve special attention and protection. The National Area designation is the best possible means to ~~assure~~ insure these species survival.

I hope that rational thinking will replace the pressures of industry and the Managed Old-Growth Alternative will become the method by which we harvest our Trees.

I would appreciate myself being added to the list of individuals who receive the EIS for SYU-13.

Thank you very Much,

Charlie Eagle
P.O. Box 51
Phillipsville Ca. 95559

(T3S-R2E; 22-061-09)

COMMENT LETTER 13. Charlie Eagle, Phillipsville, Ca.

13-1 Issue: Gilham Butte.

See response to Issue 7-1.

11/14/80

Dear District Manager -

Your thorough report has made it clear to me that the least harmful way to soil erosion, wildlife habitat, water quality and species regeneration is through managed old growth alternative.

I urge you to recommend the establishment of the 18 Reserves being considered for "Natural Areas." I am so thankful that reason won out and Gilham Butte has been removed from the timber production base. We must see that

COMMENT LETTER 14

preservation of our virgin forests prevails for our children & their children's. It seems necessary to the preservation of our culture that our children see virgin forests and the life and water these areas contain. Not only are there Spotted Owls in SYO-13 but both Bald and Golden Eagles.

I urge you, please, to recommend SYO-13 to be included under the Managed Old-Growth Alternative.

Thank you very much for reading and considering my letter.

Sincerely,
Judith Cleddon

LARRY A. MALATO
P.O. Box 35
Phillipsville, California 95559

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, California 95482

Dear Sir:

15-1 I support the decision made in the Draft Timber Management Environmental Impact Statement to exclude the Gilham Butte management block from the timber production base.

I believe there is a need to preserve the last few remaining old growth stands in Northern California. This is necessary to provide a genetic bank for the regeneration of the surrounding, previously logged over, eroding land, a habitat for the few remaining "spectacular wild animals" in the area -- Bald and Golden Eagles, spotted owl, bear, cougar, otter, pilated woodpecker and fisher--and provide a healthy watershed to nurture and protect the already severely damaged salmon fisheries of the Eel and Mattole Rivers.

Because of the scarcity of such areas, and the extremely steep and fragile landscape of Gilham Butte, any other decision would constitute an irreversible and irretrievable expenditure of the public resources.

I congratulate Dean Stepanek and his staff on completion of this comprehensive, well researched, impressive and difficult task.

Sincerely,

Larry Malato

November 14, 1980

COMMENT LETTER 15. Larry Malato, Phillipsville, Ca.

15-1 Issue: Gilham Butte.

See response to Issue 7-1.

COMMENT LETTER 16

15 November 1980
Shelter Cove Star Route
Whitethorn, California
95489

District Manager, Ukiah District
Bureau of Land Management
555 Leslie Street
Ukiah, California 95482

Sir:

Please consider the following comments on the Draft Environmental Impact Statement / Sustained Yield Unit 15 / 10-Year Timber Management Plan (hereafter: DEIS).

SUMMARY COMMENTS

BLM and the EIS Team have done an outstanding job on the present DEIS. The following lengthy comments focus on improvements that can be made in the DEIS. This critical focus should not be construed as a judgement against the fine accomplishments already manifested in the DEIS. Instead, the following comments are intended to support and supplement the many positive aspects of the document.

The DEIS demonstrates clearly that the destruction of old-growth habitat is the most serious and severe impact of the proposed action and alternatives. Yet the DEIS also establishes that neither the proposed action nor any present alternative, even when combined with all the hither-to committed mitigations, adequately protects the old-growth resource. Consequently, it is legally and ethically incumbent upon BLM to commit further mitigations and/or to develop and adopt other alternatives, such that this grave environmental effect is adequately ameliorated. As a concerned biologist long and closely familiar with the region and its problems, I cannot otherwise support the document, the proposed action, or any of the alternatives. Rationals for this stance is elaborated below.

The foregoing is not to suggest there are not other very serious problems assessed by the DEIS which must be dealt with more effectively than is presently provided. Probably foremost among these is the problem of severe erosion and sedimentation. This has been inadequately assessed in the DEIS and my ensuing comments address this problem extensively. Literature herein cited appears at the end of this comment letter.

SPECIFIC COMMENTS

Public participation (scoping) identified the further reduction of old-growth wildlife habitat as the issue of first priority concern.(DEIS pp. 2-1, 3-21). The DEIS establishes clearly that the proposed action and the alternatives would have serious detrimental impacts on remaining old-growth habitat (DEIS 4-17, 4-24, 4-27, 4-41/42, 4-66/67, 4-70). In what is probably the most candid and important discussion in the entire DEIS, even the old-growth alternative is shown clearly to be seriously weak in its treatment of old-growth habitat (DEIS 4-55); and inappropriately nmentioned in the DEIS is the fact the serious weaknesses apply with even greater force to the proposal and all the other alternatives. The gravity of the impacts on old growth is touched on at several places (DEIS at 3-17 first sentence, 3-21/22, 3-25, 4-17, 4-21, 4-24, 4-27, 4-61, 4-66, 4-70). Given the seriousness and severity of the impacts, which are inappropriately understated in the text of the DEIS (cf. Sutherland, DEIS at R-9), the proposal and all present alternatives should be rejected (cf. 42 USC 4551, 4332: the courts have now held repeatedly that these are actually substantive provisions. Also, in Jicarilla Tribe v. Morton, the 9th Circuit Court held that under the Administrative Procedure Act that a decision will be reversed where it clearly gives insufficient weight to environmental values.); however, these serious impacts may be substantially mitigated, but only if the agency at least commits the proposed mitigation of "old-growth reserves" (DEIS 4-54/55, 4-72/73). This mitigation has not yet been committed apparently because it requires further analysis (DEIS 4-1). However, the segregation of this mitigation from those mitigations already committed (DEIS 2-28/31) conveys a strong suggestion it has already been rejected. Environmental statements are to be action-forcing (40 CFR 1502.1) and not a justification for decisions already made (40 CFR 1502.2(c); BLM Manual 1792.43A1). This old-growth mitigation is so extremely important to the proposal and the alternatives that if it indeed requires further analysis it should be fully and fairly analyzed as an alternative in its own right (see especially 516 DM 4.10 B). The present failure of the DEIS to present adequate analysis of this crucial mitigation is a failure to present a clear basis for a choice among options (40 CFR 1502.14) and a failure to present a full and fair discussion of all significant environmental issues and alternatives (40 CFR 1502.1). I urge the "old-growth reserves" be fully accepted as a committed mitigation. If this ie not done, I request a full explanation as to why, in accordance with 40 CFR 1505.2(c). The foregoing is perhaps the most serious flaw of the DEIS. 16-1

Also, I recommend the addition of the parcel at Tom Long Creek, Humboldt County, as a further appropriate old-growth reserve.

35

16-2 There are other reasonable and legal alternatives which should be considered. (40 CFR 1502.2(e), 1502.14(a); 516 DM 5.3 E; see also Friends of the Earth v. Coleman, 9th Cir. 1975, 518 F. 2d 323; and Keith v. Volpe, C.D. Cal. 1972, 352 F. Supp. 1324, affd. 506 F. 2d 696, cert. den. 420 U.S. 908). Foremost among these perhaps are the alternatives of delayed action (see BLM Manual 1792.44E3a(2)) and staged implementation (BLM Manual 1792.44E3a(3)). These two similar alternatives are substantially different than any yet proposed. Delay or staging could be predicated upon ameliorating the primary environmental impact, loss of old-growth habitat. This impact is so great as to require consideration of all reasonable alternatives. These alternatives are legally justifiable under the principle of multiple use in the Federal Land Policy and Management Act. This principle provides that the public lands are to be managed without permanent impairment of the quality of the environment, and not necessarily for the greatest economic return (43 USC 1701(a)(7); 1702(c); 1712(c)(1). For further justification see also 43 USC 1701(a)(8); 1712(c)(5); (6); (7)).

Also, the DEIS should clearly provide that the final choice may consist of a combination of options, and all elements of any such a combination should be given some independent consideration; or otherwise, a number of variant alternatives should be developed (BLM Manual 1792.44E3a(5)). For example, it might be found upon examination that the proposed action modified by the subtraction of gross yarding and combined with the committed mitigation of old-growth reserves would be the preferable option from the viewpoint of NEPA. Such flexibility would be to emphasize real environmental issues and alternatives (40 CFR 1500.2(b)) and provide for better decisions (40 CFR 1500.1(c)).

The agency should identify its preferred alternative (40 CFR 1502.14(e)).

16-3 Another issue which may be quite important is that the presentations in the DEIS are based importantly upon the major assumption that significant MFP recommendations will be accepted as final (DEIS 2-4, 2-5). These recommendations, if accepted, act as significant mitigations to the proposed action and alternatives. Substantial deviations from these recommendations could render the DEIS inadequate (40 CFR 1502.9(a)). This fact is not brought out in the DEIS, and the issue merits clarification.

I strongly support the MFP recommendation that Oilham Butte be established as a Natural Area (DEIS 3-32). My numerous reasons for this support may be reviewed in my previous letters to your office on that subject and in my lengthy article in Star Root, Vol. 1 No. 1 (1977).

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Because it is so urgent to conserve significant amounts of old-growth habitat, if the proposed mitigation of old-growth reserves is not fully committed and/or some new and effective alternative, not now present in the DEIS, is not chosen, I cannot support the DEIS, the proposed action, or any present alternative. Beyond this, as a matter of preference, I would recommend adoption of that alternative which least impacts the old-growth resource. That is, at least for the next few decades, the limited investment alternative (DEIS at 4-41, 4-67). This is to stress the extreme importance of conserving old growth. If the proposed mitigation of old-growth reserves is fully committed, then I strongly recommend adoption of the managed old-growth alternative.

16-4 Figure 4-3 (DEIS at 4-67) shows acres of old growth falling off in the early decades about equally as rapidly for both the proposal and the limited investment alternative. This result is not reasonable if in fact the proposal provides for 199 acres of roads in the first decade (DEIS 4-15) while limited investment provides only 129 acres (DEIS 4-39). Surely the differing amounts of access should manifest more sharply in acres of old growth lost. Loss of old growth also would be sharply moderated by the differences of allowable cuts (97 MMBF proposal, p. 2-8, versus 65 MMBF limited investment, p. 2-19). I believe a recalculation of these and other influences will show in Figure 4-3 the limited investment alternative to have a more moderate influence on remaining old-growth stocks than is presently shown. The inaccuracies of the present treatment render the DEIS discussions of this alternative quite inadequate.

Also, at many places in the DEIS it would be helpful if discussions were reshuffled to their most appropriate headings. For example, under the discussion of the limited investment alternative (DEIS 2-18/19) there is no mention that fewer roads would be built; such information must be gleaned elsewhere (DEIS 4-37/9). Cross-referencing would be very helpful (see BLM Manual 1792.44E3b(5)). And also the very important discussion of wildlife at DEIS 4-53 relates to the discussion of wildlife at DEIS 4-72/75, thus the text at 4-72/73 should have a cross-reference to DEIS 4-55.

16-5 Some clarification of basic statements is needed. I found the DEIS at first confusing in its presentation of the basic issues. I suggest, for example, that the following underlined clarifications be added to the second paragraph on DEIS v:

"The proposed action is an intensive 10-year program to harvest 97 million board feet of timber from 4220 acres of BLM-managed forest containing significant old-growth habitat, and to perform ....The timber production base for all decades, a product of...."

Also, the lengthy discussion of the MFP process, combined with its importance to the proposed action and alternatives, creates further confusion. It should be clearly stated at DEIS 2-5/4 that this is not an environmental statement for the MFP and that the discussion in the DEIS is presented as background material.

16-6 The DEIS at 4-15 states that under the proposal in the first ten years 4220 acres of old growth would be permanently changed to second growth. If so, the chart at DEIS 4-67 is seriously in error. If instead this figure of 4220 acres is in error, provide the correct figure if known. If unknown, please so indicate (40 CFR 1502.22).

16-7 According to Map 2-1 (DEIS 2-5), the King Range extension area of 1976 is not a part of SYU 8. This contradicts Map 2-2. Clarify, please.

16-8 I strongly support provisions calling for full-bench excavation with end-hauling of waste materials (DEIS 2-12) and this should be committed as a mitigation. However, the DEIS presents a boggling apparent contradiction as to just which slopes such provisions might apply. DEIS at 2-12 applies the techniques to slopes exceeding 60%, while an excellent committed mitigation at DEIS 2-26 provides that roads will not be built on slopes in excess of 60%.

16-9 DEIS at 4-3 projects a mere 22% of soil erosion will come from roads, and similar percentages are shown in Table 4-6 (DEIS 4-38). However, DEIS at 4-64/65 projects roads as the major cause of erosion. Numerous published references agree with the latter conclusion, and published figures most often show 50% to 80%, or even more, of erosion originating from roading (e.g., Anderson, 1971:57). The highest percentages are much more likely in SYU 15, because roads are cut relatively deeply. And in the dominant forest soil (Hugo) the A horizon is strongly erosion-resistant while the B horizon, commonly exposed by road cutting, is very erodible (Dodge et al. at p. 60, DEIS at R-3). It is thus apparent the projections of about 22% are highly incorrect.

The comparison of horizon erodibility in the dominant Hugo soil shown in Dodge et al. (supra) is of considerable moment and should be well discussed in the DEIS. Present attitudes, fostered by a misleading rating found in the California Forest Practice Rules, lightly regard the magnitude of the erosion problem in Hugo soils; reform of the California rating system is strongly opposed by vested interests. The Eel watershed, in which most SYU 15 lands are located (DEIS 3-9), is strongly dominated by Hugo soils (Soil-Vegetation Maps), thus the words of the U.S. Geological Survey (1971:1) are here exceedingly telling:

"The Eel River has the highest recorded average annual suspended sediment yield per square mile of drainage area of any river of its size or larger in the United States....The erosion rate in the Eel River basin is a major watershed management problem."

The magnitude of the erosion problem would be strongly affected by the proposed action and alternatives, yet not even the magnitude of the overall proulem is adequately assessed in the DEIS, and the proposed mitigations reflect this weakness.

Kojan (1967) found the principal cause of stream sedimentation in California's North Coast Ranges to be the mass wasting processes of slumps and earthflows. His widely cited findings contradict the DEIS (at 3-9 next to last paragraph), and the DEIS discussion is unsubstantiated (40 CFR 1502.24, 1502.21; 516 DM 4.12). The great majority of these slumps are initiated, accelerated, or reactivated by man's activities (many published references), especially activities which disturb the natural hydrology even slightly. These include especially road building, including skid roads, and may even under extreme circumstances include a mere one or two passes by a tracked vehicle. Logging operations are strongly implicated as instigators of mass wasting. Since operator performance in the field can make a large difference (DEIS 4-5), close supervision is a very important mitigation and the supervising authority should have in hand the site-specific geotechnical report. If necessary the timber sale bid should include the extra cost of this mitigation. Although Forest Service studies claim that not even careful study will identify all potentially unstable areas in advance, the proper use of geotechnical reports is perhaps the single most important mitigation against the incidence of mass wasting. I strongly applaud the commitment of their use to roads (DEIS 2-26), but I urge they be applied to logging sites as well.

16-10 The estimated sediment yields at DEIS 4-9 seem particularly unreal, given the magnitude of the sedimentation problem discussed above. They also are in sharp disagreement with estimated yield figures elsewhere in the DEIS. Surely it cannot be asserted the figure of 512 tons/40 acres (DEIS 3-9) is significantly overestimated when projected to areas "disturbed by roads, skidding, and related activities" under the proposal (4-9), yet such severe disturbance is asserted to yield merely 222 tons/square mile, an absurdly low figure when compared to actual watershed measurements (3-8). In addition, it is well to remember that the federal lands inherited by BLM are generally the steepest, roughest, and hence most erodible, in the entire region. In sum, the DEIS treatment of the major problem of erosion and sedimentation is seriously inadequate.

16-11 The DEIS also gives inadequate consideration of slope steepness. It is very likely the 5,100 acres of physical problem sites shown on DEIS 2-9 does not include many areas at which slopes are too steep for environmentally responsible logging. DEIS at 5-4 lists problem areas removed from the inventory and includes no mention of excessively steep slopes. The statement that remaining soils are productive and capable is inaccurate if steep slopes have not been removed (DEIS 3-4). The ruling slope of BLM SYU 15 lands is so severe that it is extremely unlikely the 5,100 acre figure could include all over-steep areas. Erosion, loss of site productivity, and destruction of other environmental values due to inappropriate logging of over-steep slopes has created severe impacts in SYU 15. The DEIS discussion of this issue requires expansion. Also, please commit mitigations to prevent operations on over-steep slopes.

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Landsliding is commonly initiated 5 to 6 years after logging and is then associated with the rotting of roots which while living possessed the shear strength to anchor soil (DEIS at 4-3, 4-5, and many published references; but the DEIS at 4-2 first sentence erroneously contradicts this). My own observations of logging operations in SYU 13 show this is at times a major cause of erosion and it then strongly belies the 50 - 90% figures of DEIS 2-26 third paragraph. This is particularly a problem of over-steep slopes. That first sentence on DEIS 4-2 also fails to recognize that increased water yield resulting from deforestation may substantially affect slumps and earthflows (Swanston and Swanson, 1976).

16-12 At DEIS 4-2 fifth paragraph "downcutting" is not correctly an appositive for "aggradation".

Closely related to the important subject of erosion is the subject of rainfall. I am thus surprised at the strong understatement of rainfall totals in the DEIS (at 3-1), because it is one of BLM's own cooperator stations (on the edge of SYU 13 at Bridge Creek, Dr. D. Stevenson) which obtains much higher figures. A recent seven year average for that station gives 167 inches per year, with a remarkable 250.3 inches recorded the season of 1973-74. This station is located in a wet spot, but another station in the same drainage obtains about 145 inches annually, verifying Stevenson's records (D. Ingold, pers. comm.). This demonstrates that the erosion hazard ratings in the area are underrated by the climatic stress factor, in addition to the inadequate soil erodibility classification discussed above. These factors combine to underscore the assessment that erosion rates in the SYU 13 area are a major management problem. This important realization is not developed in the DEIS, and is a major shortcoming of the report.

I have not checked the soils map (DEIS 3-5/6) extensively, but I have compared it to a number of Soil-Vegetation Maps at the area of the Humboldt - Mendocino Counties line. These maps do not
16-13 concur with the DEIS map, for they show the area to be strongly dominated by the Hugo - Josephine series, not the Casaborne - Waymen series as shown in the DEIS. My own (limited) field sampling in that area causes me to believe the Soil-Vegetation Maps are the more correct reference.

It is understandable but yet an error to assert the proposal will have no effect on climate (DEIS 4-1). For example, it is thought the canopy of old-growth redwood stands creates humidity and temperature levels conducive to fogs and other microclimatic features required by associated life forms. On a grand scale deforestation is now thought by many authorities to have an important desiccating effect upon climate. Relevant research appears much more highly developed in the U.S.S.R. (see Rakhmanov, 1962), which may help explain the pervasive ignorance of this important subject among

COMMENT LETTER 16

U.S. foresters. The impacts on climate of the proposed action may be individually insignificant but they are cumulatively significant because they relate clearly to the widespread and massive deforestation occurring elsewhere on this continent. It is a sad comment that such subtle but important long-term effects cannot be expected to receive serious consideration. I believe it to be a comment that we are instead obligated to direct all our energy to short-stopping the ravages of uncontrolled and systematized greed.

Some authorities believe logging and road construction have caused enormous damage to area watersheds, and that much of the sedimentation and soil loss is for practical purposes permanent. Given the "coincidental" (?) catastrophic decline of anadromous fish runs, it appears unsubstantiatable, conclusory, and judgemental to assert (as at DEIS 4-25) that a slight increase in sedimentation would not be significantly detrimental to the fishery resource. If for example the resulting sedimentation permanently reduced the fishery by a mere two pairs of salmon, the economic impact alone would be tremendous (cf. Everest, 1978; Kesner, 1977); and the value of spawning gravels receives insufficient discussion in the DEIS. Also on DEIS 4-25, the statement that some studies "raise a lot of doubt" about sedimentation and fisheries is again conclusory and lacking in objectivity (40 CFR 1502.24; 516 DM 4.14; Trout Unlimited
16-14 v. Morton, 9th Cir. 1974, 509 F. 2d 1276). On DEIS 2-13 reference should be given which clarifies the meaning of "significant" as it applies to "fisheries resource". The discussions by Everest (1978), especially at pp. 159-160 and 165-166, are highly apropos.

Sedimentation harms fish in more ways than are mentioned at DEIS 4-25. For example, Brown (1969) was the first to discover that sedimentation may strongly affect stream temperature. In the unsedimented (natural) stream stretches of bedrock alternate with stretches of gravel. The bedrock, much more than gravel, acts as an energy sink by day and an energy releaser by night, thus moderating stream temperature. In the sedimented (damaged) stream silt and gravel insulate these thermal sinks, rendering them disfunctional. There are other negative effects of sedimentation unmentioned in the DEIS.

"Factors involved in the rate of evaporation" (DEIS 4-3) should also include the amount of exposure, such as the presence or absence of insulating duff. Concerning water quality, I concur with and commend the first paragraph under that heading on DEIS 3-7. The last sentence on DEIS 3-9 suggests you are unaware of the excellent paper by Kennedy and Malcolm (1977).

Thank you for not proposing aerial application of herbicides. The preponderance of scientific evidence supports your position, most of the people of the region strongly oppose such use, and hence a proposal to aerially spray could be construed as an inappropriate attempt to placate the minor but powerful vested and self-serving few.

16-15 I am surprised the DEIS nowhere mentions or discusses the very important relationships of mycorrhizal fungi to forests and the impacts of deforestation upon them. An excellent review and literature entry point is Trappe and Fogel, 1977. Also, the interrelation of these fungi and small mammal mycophagists has important implications for forest management (Trappe and Massr, 1977; Maser, Trappe, and Ure, 1978) and should certainly be discussed.

16-16 The DEIS fails to mention the importance of a continuous canopy in old-growth stands, and does not commit any mitigation for the loss of such canopy (DEIS 2-22, 2-28). The continuous canopy is recognized as a major feature of old-growth forest, and it is important to the habits of such old-growth-dependent species as the Red Tree Mouse and flying squirrels.

I strongly support the committed mitigations of snag retention established at DEIS 2-27. These appear to be a good example, among many, of responsible forest management.

The committed mitigation to make a special effort to determine the presence of habitat for low-density species such as fisher and red tree mouse (DEIS 2-30) is very praiseworthy. However, detection of suitable habitat alone does not constitute mitigation. Positive provision should be made to adequately protect any such low-density species discovered. Some such species, such as the marten, are clearly in serious danger of extirpation from the region. The decline of such species is associated with human disturbance, especially habitat loss. Only government agencies such as BLM can act significantly to forestall permanent loss of these resources.

16-17 The DEIS treatment of endangered species needs enlarging. If you are going to resolve "any possible impacts involving endangered species" as per DEIS 2-17, but "available data are not adequate to confer final clearance on endangered, threatened, or sensitive species" (DEIS 5-21), a committed mitigation should be that no parcel is entered in or available to the timber production base until it is thoroughly inventoried and assessed for its relationship to such species and found to have no such significant relationship. Despite various mitigations and assurances in the DEIS, it is nowhere explicitly committed that no logging will be conducted without first full clearance of any possible conflicts with endangered, threatened, or sensitive species. A case in point concerns a parcel of about 165 acres on the north slope of Bear Buttes, Humboldt County, which may well harbor the only remaining examples of Astragalus agnicidus Barneby, if in fact any exist anywhere. This plant is on List One of the 1980 edition of the California Native Plants Society's rare plant inventory and thus merits the most intense attention possible. Yet according to DEIS Map 2-2 this parcel is included in the timber production base. Frankly, such inclusion seems to be a lapse of good judgement.

COMMENT LETTER 16

16-18 I greatly appreciate the important and astute discovery by BLM of the "red-backed tree mouse" (DEIS 4-20). However, this creature (Clethrionomys X Phenacomys ?) should first be announced in Journal of Mammology or other appropriate forum. While it is true many mammalogists are concerned only with mammals native to the museum case biome, that this form is "dominant" in old-growth will probably come as a shocker to some who may have visited such places on a vacation once. The lateness of its discovery is no doubt a keen testimonial to the great rarity of the remaining old-growth habitat. Thank you for finding this obviously relict form, that we may have a few specimens before its final demise in the Great Chipper. Please be sure, though, that you take care of it before Fish and Wildlife finds out.

16-19 Figure 2-3 (DEIS 2-20) fails to portray the losses (relative or otherwise) due to loss of long-term site productivity. Although these differences may be scarcely quantifiable, their complete absence from the chart suggests their effect is negligible - but such is certainly not so, as established at DEIS 4-65. Please correct Figure 2-3 accordingly. The subject of site productivity is inadequately discussed, and this constitutes a serious failure to discuss the relationship between short-term use of man's environment and the maintenance and enhancement of long-term productivity (42 USC 4332; 40 CFR 1502.16; BLM Manual 1792.44B6). For example, the replacement of old-growth by second-growth will greatly enhance the intensity and frequency of wildfire, which will have both primary and secondary effects on productivity. Among secondary effects, seed is destroyed, soil is badly damaged, and erosion is accelerated. These effects are well recognized in the literature. Further, the statement at DEIS 4-8 that site productivity would be only moderately affected by erosion is inaccurate, unsubstantiated, conclusory, and lacks objectivity (40 CFR 1502.24; 516 DM 4.14; BLM Manual 1792.45A1; Trout Unlimited v. Morton, 9th Cir. 1974, 509 F. 2d 1276). Many other aspects of productivity, such as seedling establishment, are also inadequately discussed.

The proposed seed production area (DEIS 4-14) is clearly insufficient. In addition to the limitations listed in the DEIS, it is important to be able to provide seed for adjacent private lands, which are generally much less well stocked than BLM lands, due to a long history of very poor forestry practices. I thus strongly support the relevant committed mitigation on DEIS 2-27.

The vast majority of forest lands in STU 15 are privately owned. Yet these areas are managed only for single-resource-based short-term profits. Such concepts as seed production zones and old-growth reserves are but dimly if at all served. It thus devolves upon the managers of the public lands, as stewards of the national interest, to compensate for poor management in the private sector. Such managerial adjustment by public agencies is well supported in the legal principle of multiple use (cf. 43 USC 1702(c)), among other authorities.

16-20 The DEIS fails to list all Federal permits, licenses, and other entitlements which must be obtained in implementing the proposal (40 CFR 1502.25(b)). This should include a brief review of sale procedures, bonding, opportunities for public review and input, and points at which environmental control and enforcement may be administratively exercised. For example, the reader should be apprised of such matters as whether BLM has the right to reject a timber sale bid based on a record of past environmental abuse by the bidder. Also, if established procedures do not allow for substantial modification as a result of public input, a committed mitigation should provide procedures whereby the public can effect changes. For example, the present DEIS and the subsequent Record of Decision should not lock out meaningful alternatives which could be committed as a result of new information significant to a particular timber sale, when the significance of such new information to the entire ten-year plan is not sufficient to warrant issuance of a supplemental environmental statement pursuant to 40 CFR 1502.9(c). The subject of control, as through permits, is very important, and is inadequately treated in the DEIS.

16-21

The discussion of administrative points of control should also include a full discussion of monitoring. DEIS at 4-5 establishes that operator performance is a most important factor. The DEIS fails to establish precisely what control there will be over this factor. It is clear that, when operator performance is poor, close monitoring and control could have very significant mitigating effects (see related discussion re geotechnical reports, supra). Please discuss this important general subject fully. Also, if BLM anticipates there may be serious environmental consequences arising from inadequate funding for monitoring and control, please discuss this clearly, and include a discussion of how the costs might be directed to the bidder so as to provide effective environmental protection.

I strongly support the emphasis on permanent easement acquisition (DEIS 1-3). Private timber companies and adjacent land owners should not have exclusive use of public resources. In STU 15 some private land holders use adjacent public lands for illegal purposes such as grazing trespass. When public lands are used for private purposes lost public revenues such as property taxes should be borne by the private user of the public resource. Since the land is being used as

if it were private, public timber sale land to which no public easement is to be established should carry as part of the minimum timber sale bid charges equivalent to full property tax costs for the full rotation of the timber. If this matter of easements is actually an issue of the DEIS, the foregoing point of view should be fully discussed (40 CFR 1502.9(b)).

DEIS 2-18 establishes that historically the King Range produced a disproportionately large share of timber, thus skewing past production figures. It thus seems untoward to rely on those figures for projected production, as does the DEIS at 4-36.

The discussion of employment and earnings (DEIS 4-35) is inaccurate, conclusory, and unsubstantiated. (40 CFR 1502.24; 516 DM 4.14). For example, the figures used fail to account for the regional employment trend caused by automation. While in 1947 it took 11.3 people to produce a million board-feet of lumber, by 1975 that figure was down to 7 people. At the new Simonson mill at Smith River it takes a mere 1.8 people to produce a million board-feet. The Forest Service has projected a 49% decline in employment in the North Coast forest industry by 2020 (Oswald, 1970). The percentage of future total employment in this region is thus much lower than asserted in the DEIS.

16-22 The DEIS contains no discussion or mention of coordination with tribal plans as required by 43 USC 1712(c)(9). This requirement is much stronger than merely inviting tribes to comment. See also 516 DM 1.5 A.

16-23 "Other studies on soil temperatures found that deerbrush...." (DEIS 4-5); although I am well read on this subject, I do not recall seeing this. I shall appreciate a reference citation. Also, "excessive amounts of forest litter...may also be undesirable" (DEIS 4-12); reference, please (516 DM 4.12).

LITERATURE CITED

Reference note. Among legal authorities, I have frequently (though not exhaustively) cited BLM Manual 1792. This Manual section was to have been replaced by new procedures in conformance with the CEQ regulations pursuant to 40 CFR 1507.3. Part of these new procedures were issued 25 April 1980 as Part 516 of Interior's Departmental Manual, but as of 31 October 1980 the BLM Appendix to these Departmental procedures still had not been issued (Robert C. Jones, pers. comm.). At least because the DEIS was substantially complete before 25 April, BLM Manual 1792 is probably authoritative where it does not conflict with the CEQ regulations; but in any case it at least contains useful guidance for improvements to the DEIS.

Anderson, Henry W.
1971. Relative contributions of sediment from source areas, and transport processes. In: Forest land uses and stream environment. Krygier and Hall, eds. Oregon State Univ.
Brown, George W.
1969. Predicting temperatures of small streams. Water Resources Research 5:68-75.
Everest, Fred H.
1978. Anadromous fish habitat and forest management - economic considerations. Pp. 153-171 in: Proc. of West. Assoc. of Fish and Wildl. Agencies and West. Div. Am.Fish Soc. 58th Ann. Conf.
Kennedy, Vance C. and Ronald L. Malcolm
1977. Geochemistry of the Mattole River of northern California. U.S.G.S. Open-File Rpt. 78-205. Menlo Park, CA
Kesner, W.D.
1977. An economic evaluation of the salmon and steelhead fisheries attributable to Klamath National Forest. USDA For. Ser., Klamath Natl. For.
Kojan, Eugene
1967. Mechanics and rates of natural soil creep. 5th Ann. Eng. Geol. and Soils Eng. Symp., Idaho Dep. Highways, Univ. Idaho State Univ., Pocatello, Proc. pp. 233-253.
Maser, Chris, James M. Trappe, and Douglas C. Ure
1976. Implications of small mammal mycophagy to the management of western coniferous forests. Pp. 78-88 in: Trans. 43rd N. Am. Wildl. and Nat. Res. Conf., 1978. Publ. Wildl. Mgt. Inst., Wash. D.C.
Oswald, Daniel D.
1970. California's forest industries - prospects for the future. USDA For. Ser. Res. Bull. PNW-35.
Rakhmanov, V.V.
1962. Role of forests in water conservation. Translated from Russian for U.S. Dep. Agric. and Natl. Sci. Found., Wash. D.C. by Israel Program for Scientific Translations.
Swanston, Douglas N. and Frederick J. Swanson
1976. Timber harvesting, mass erosion, and steepland forest geomorphology in the Pacific Northwest. Pp. 199-221 in: Geomorphology and engineering. D.R. Coates, ed. Stroudsburg, Pa.
Trappe, James M. and Robert D. Fogel
1977. Ecosystematic functions of mycorrhizae. Pp. 205-214 in: Range Sci. Dep. Sci. Ser. No. 26, Colorado State Univ., Ft. Collins.
Trappe, James M. and Chris Maser
1977. Ectomycorrhizal fungi: interactions of mushrooms and truffles with beasts and trees. Pp. 165-179 in: Mushrooms and man, an interdisciplinary approach to mycology. T. Walters, ed.
U.S. Geological Survey
1971. Sediment transport and turbidity in the Eel River basin, California. Water Supply Paper No. 1986. 70pp.

COMMENT LETTER 16

Thank you for your consideration of the foregoing comments. I respectfully request to receive a copy of the final statement, the Record of Decision, and all supplemental statements, if any are issued.

Sincerely,

Robert Sutherland

Robert Sutherland.

cc:
Natural Resources Defense Council, Inc.
California Native Plants Society
Sierra Club, Redwood Chapter
Environmental Protection Information Center
Mattole Watershed Taxpayers' Association
R. Gienger
P. Childs.
Soil Conservation Service
U.S. Fish and Wildlife Service

COMMENT LETTER 16

ADDENDUM

District Manager, Ukiah District 18 November 1980

Sir: Please append the following remarks to my enclosed letter of 15 November re Timber DEIS. These remarks constitute an addendum occasioned by my late receipt of two relevant items:

1. Fish and Wildlife Conservation Act of 1980 (P.L. 96-366; 16 USC 2901-2911). One of the Purposes of this Act is "to encourage all Federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities, to conserve and to promote conservation of nongame fish and wildlife and their habitats, in furtherance of the provisions of this Act." (16 USC 2901(b)(2)). I am concerned that provision be made in the Timber Management Plan so that full opportunity to comply with this new Act will not in any way be compromised or reduced by commitment to the Plan. In this regard I also recall to your attention my letter of 21 October 1980 to you addressing this subject. I shall appreciate it if you will please consider that letter to be part of my comments on this DEIS.

2. Zettlemoyer, Robert H, 1980. "The effect of precipitation patterns on surface runoff," California Department of Water Resources, Division of Flood Management. This study of the Mattole River drainage recordad precipitation at five stations in that basin for water years 1960 through 1974. It reports annual rainfall as high as 161 inches and estimates the mean annual Mattole basin-wide precipitation for that period to have been 110 inches. This study thus presents further data confirming the remarks in my enclosed comment letter at p. 7, that DEIS at 3-1 understates rainfall records. This understatement helps to create the misleading assessment in the DEIS of the magnitude of the erosion problem in SYU 13, and should be rectified.

Robert Sutherland

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RESPONSE LETTER 16

COMMENT LETTER 16. Robart Sutherland, Whitethorn, Ca.

16-1 Issue: Wildlife mitigation - old-growth reserves.

In accordance with 40 CFR 1508.20, the analysis process for SYU 13's timber management environmental impact statement developed project design features (parameters) and committed mitigations to address potential adverse impacts as a consequence of program implementation. Additionally, a category of "Other Possible Mitigation" (Page 4-72) was developed to allow the decisionmakar additional latitude during the decisionmaking process.

As noted in 40 CFR 1505.2, the decisionmaker shall state in the Record of Decision what the decision is, identify all alternatives, and identify which is (are) considered environmentally preferable. Full considerations during this process shall be given to public input and national policy. Development of a decision for the timber program could be any of the alternatives, or the proposal, or a combination of them. During this process, the decisionmaker can commit additional mitigations from the "Other Possible Mitigation" category.

16-2 Issue: Delayed action and staged implementation alternatives.

The proposed action, managed old-growth, and limited investment alternatives, with the accepted mitigations (Stand Management Page 2-28), are in effect variations of staged or delayed implementation.

16-3 Issue: Management Framework Plan (MFP) Recommendations.

Substantial deviation from the alternatives or combination of alternatives would require a supplemental environmental impact statement (EIS). The *Code of Federal Regulations* is automatically incorporated by reference and does not require clarification in an EIS.

16-4 Issue: Loss of old-growth timber.

The acreage out of production due to roads is a minor part of the overall acreage affected by the 10-year plan. This acreage also includes productive forest land on private land and productive forest land that has already been logged. Road acreages are estimates made on the sales that would most likely occur if a particular alternative were selected. Figure 4-3 is the result of modeling the 1974 extensive inventory and is intended to provide statistical projections only and not to dictate actual implementation (Page 2-11).

16-5 Issue: Management Framework Plan (MFP).

The discussion on the Bureau Planning Systems (BPS) is intended to show the reader the correlation between the planning process and the analysis. After initial discussion of the BPS beginning on Page 2-3 and the first two paragraphs of Page 2-4, a lengthy discussion of this correlation is made. All of this is summarized in the last paragraph on Page 2-4, where it is specifically noted that, "This is a regional timber management environmental impact statement as opposed to a site-specific land-use allocation or timber sale plan."

16-6 Issue: Old-growth timber.

The statement on 4-15 refers to old-growth as being virgin stands, not in the same context as is used in Figure 4-3 (greater than or equal to 200 years). See Chapter 4 Errata. Figure 4-3 is a modeling projection and includes ingrowth, which complicates the correlation with the 4,220 acres impacted in the 10-year plan.

16-7 Issue: King Range Extension Area - Map 2-1.

Map 2-1 is in error. It should reflect the King Range extension as shown on Map 2-2.

16-8 Issue: Full-bench excavation mitigation.

The commitment to a 60 percent slope limitation on road construction will be adhered to as developed. However, should an exception to this commitment occur, it will come under the additional mitigation of required full-bench construction with endhauling requirements.

16-9 Issue: Roads - erosion.

On a per acre basis, roads are the major cause of erosion (Page 4-3); 5 to 49 tons per acre compared to 2.4 to 7.4 tons per acre for logging (Page 4-6). Twenty-two percent of the erosion coming from 5 percent of the disturbed area is a major source of erosion. In addition, 44 percent of the road construction and reconstruction will be done on ridgetop locations (Table 4-1), the position on the landscape with the fewest problems from erosion and landsides.

RESPONSE LETTER 16

16-10 Issue: Sediment yield.

The 312 tons per 40 acres on Page 3-9 is based on total sediment transport measured downstream in the major stream system. It is an accumulation of all sediment passing that point in the river. This includes bank sloughing, direct mass wasting into the channel, degradation of channels, all sediment caused by man's activities, and natural events. On the other hand, most of the blocks of public land are high in the watershed where the land is relatively undisturbed, so the 312-ton figure is an overestimate.

Watershed measurements in Table 3-1 on Page 3-8 show estimated average annual water yield, not sediment yield, so they cannot be used for comparison.

16-11 Issue: Steep slopes.

Physical problems include steep slopes, and acreage was withdrawn because of gradient from the timber production base by the timber capability classification (TPCC) inventory (California State Office, BLM Manual Supplement 5251).

16-12 Issue: Downcutting.

Downcutting is not an appositive for aggradation. See Chapter 4 Errata.

16-13 Issue: Soils Map.

The soil-vegetation maps compiled in 1949 do not concur with the General Soils Map in the draft environmental impact statement. Each was prepared using soils information gathered under a different classification system, for a different purpose, and at different times. The Hugo-Josephine series were established in Josephine County, Oregon, in 1919. Since that time, their concept has changed. What was mapped as Hugo or Josephine soils in the SYU 13 area does not fit the type description today. More field work has shown the need to separate the broad category of Hugo-Josephine. These two soils include the major forested areas in Humboldt and Mendocino counties. The need for better management based on soil characteristics dictated the decision to do a better job of classification. Classification today is based on the system published in *Soil Taxonomy* (USDA, SCS 1975).

16-14 Issue: Fisheries.

See response to Issue 4-5.

16-15 Issue: Small mammal mycophagists.

It is acknowledged that small mammals do serve as vectors for the dissemination of mycorrhizal fungi. Maser is a co-author of Franklin's paper *Ecological Characteristics of Old-growth Forests in the Douglas-Fir Region* (1979). Franklin's paper discusses symbiotic relationships (Franklin et al., 1979, pp. iii and 76) and is cited in the draft environmental impact statement (EIS) for Sustained Yield Unit 13. This information is also contained in the Scattered Blocks Planning Unit Management Framework Plan (Ukiah District Office, BLM) and was used to prepare the mitigation contained in the draft EIS.

16-16 Issue: Continuous canopy, old-growth stands.

It is presumed that "continuous canopy" refers to large areas of undisturbed forest. The importance of large areas of mature forest is discussed throughout the text. Also discussed is the importance of the various habitat components, including vegetation strata that make up the canopy and depicted as old-growth habitat components in Figure 3-3, Page 3-23.

Habitat recommendations indicate that the flying squirrel can be accommodated in 7 to 10-acre patches of undisturbed, suitable habitat near streams (USFS 1979a). Although these squirrels find optimum habitat in dense forests, Hemphill (1952), in his study of the nearby Southern Yolla Bolly Mountains, found some squirrels in scattered young white firs interspersed with forest chaparral. Red tree mice prefer large trees but will live in small trees, and home ranges probably include one or several trees (USFS 1979a). A minor amount of optimum habitat would remain in buffer strips and, depending on how and where trees are left, by the managed old-growth alternative. But, overall, as indicated in Table 4-7 (Page 4-51), the proposed action and alternatives would result in suboptimal habitat for these animals.

16-17 Issue: Endangered Species.

Site-specific environmental assessments will be done for all projects (Page 2-12). At that time, endangered species will either be cleared or the project will be modified.

16-18 Issue: Red-backed mouse.

See Chapter 4 Errata.

RESPONSE LETTER 16

16-19 Issue: Allowable cuts.

Figure 2-3 illustrates projected harvest levels for only nine decades, to the critical point when all currently merchantable volume has been cut and young stands begin to reach merchantable size. Long-term loss of site productivity demonstrated by volume loss would not apply in the nine decades. In fact, projected volume would increase after the ninth decade because of increased stocking (Pages 2-22 and 2-25).

16-20 Issue: Implementation - Federal permits and licenses.

All Federal laws, the *Code of Federal Regulation* (CFR), and manuals affecting the Bureau of Land Management are automatically incorporated by reference into any action. The primary reviews required by 40 CFR 1502 are cultural resources and endangered species, which are included in the parameters section of Chapter 2. Sales procedures, bonding requirements, etc., do not constitute environmental review and are not required in an environmental impact statement. These procedures and requirements can be found in 43 CFR.

16-21 Issue: Mitigation.

Site-specific environmental assessments will be done for each project and will permit needed modifications (Page 2-12).

16-22 Issue: Tribal coordination.

Section 202 of the Federal Land Policy and Management Act (43 USC 1712) refers to land use planning. Land use planning is presented primarily as background material and as parameters for the alternatives and is not covered in detail in the environmental impact statement. The BLM coordinates land-use plans with other agencies, including Indian tribes.

16-23 Issue: Soil temperature references.

The reference for the statement on Page 4-3 is included at the end of the citation on Page 4-5. Hallin (1968) is included in References Cited on Page R-5. The reference for the statement on Page 4-12 is Miller et al. (1976) and is in References Cited on Page R-7. See Chapter 4 Errata for Page 4-12.

11.17.80

District Manager
Ukiah District, BLM
555 Leslie St., Ukiah, CA

Dear Sir,

I would like to take a moment to respond to yr department's E.I.S. for SYU 13. I believe your staff is to be commended, as this is the finest, the most thorough---and perhaps the most 'avant-garde' document of its kind that I have had the pleasure to study and appraise. I am recommending it to my friends and neighbors, a must for any "country cabin's" bookshelf!

Although I would like to comment at length on specific portions of this E.I.S., my time is otherwise preoccupied, so must be content to speak in generalizations. Of the alternatives set forth, I would encourage the Old Growth Management proposal be adopted, and set into practice. This is a precedent setting scenario, as far as I can determine from my experience with various public agencies and their management options. My greatest concerns could best be expressed under yr headings, "Soil" and "Water Quality".

17-1 As co-founder of the Mattole Watershed Taxpayer's Assoc., and current member of this same group, I am elated to see that the Gilham Butte Unit has been excluded from the timber harvest planning base. I personally walked the Butte with Dean Stepanek, and had many meetings with various personnel from yr District office, and am very glad to see that it was not an effort spent in vain. Again, I commend those involved in the formulation of the decision to set the Butte aside. Keep up the exemplary work!

Sincerely yours,

Rick Landry

Rick & Gay Landry/ Bx. 288, Garberville, CA

COMMENT LETTER 17. Rick Landry, Garberville, Ca.

17-1 Issue: Gilham Butte.

See response to Issue 7-1.

I recently became aware of your decision to remove Gilham Butte from the timber harvest, and I highly commend you. My time in the Salmon Creek area has assured me that Gilham Butte should be allowed to exist as is. The old growth stands are worth far more than the timber they would become.

18-1 Please keep Gilham Butte excluded from the timber base for this area.

Sincerely, Lawrence Kaplan

COMMENT LETTER 18. Lawrence Kaplan, Miranda, Ca.

18-1 Issue: Gilham Butte.

See response to Issue 7-1.

Nov. 20, 1980

Dear District Manager,

19-1 I strongly support your decision to remove Gilham Butte from the timber base. I am a landowner and dweller in the area nearby to Gilham Butte. This area must not be classified as "productive forest land."

Sincerely,

Stephen Weissbluth
Box 354
Miranda, Ca. 95553

COMMENT LETTER 19. Stephen Weissbluth, Miranda, Ca.

19-1 Issue: Gilham Butte.

See response to Issue 7-1.

COMMENT LETTER 20

Nov. 10, 1980

Mr. Edwin Q. Katzes
Acting District Manager
Bureau of Land Management
Ukiah District Office
P.O. Box 940
Ukiah, Calif. 95482

Dear Ed,

It was a pleasure to meet you at the Citizens' Advisory Committee meeting; I want to take this opportunity to once again wish you the best of luck in the "hot seat", and to send along some of the thoughts I promised with respect to the Timber Harvest Plan.

First, I must reaffirm my feeling that the EIS is an exceptionally well-done job. It seems to me to be thorough and remarkably objective in assessing the [redacted] impacts of the various alternatives. As desperately need this kind of approach, it seems to me, in order to meet the demands which changing times have and will continue to impose upon us. I don't suppose we can be blamed too much for our short-sighted policy of resource use in the past; we had our hands in a seemingly bottomless cookie jar. But we are now being forced to look ahead and plan in a way that is new to us and, for that matter, new to the world. It is my hope that we can free ourselves from personal and regional perspectives and formulate policies and plans which will give our descendants the best possible chance to enjoy the marvelous and unique blessings which this planet has provided for us.

The wishes of the American people as expressed by their elected representatives are very well set forth in the FLPMA of 1976, in which we find a broad and specific range of values recognized to be held in the public lands. The ongoing need for material resources such as timber and minerals is of course recognized, but it is also stated that the public lands will be managed on a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values." It goes on to state that "where appropriate, (we) will preserve and protect certain public lands in their natural condition ", and it is in this connection that I find my most serious objection to the general perspective of the timber harvest Plan. No matter how thoroughly the impacts are assessed; no matter how detailed the plans for mitigation, the fact remains that we propose to eliminate forever 11,200 acres of old-growth Douglas Fir forest from our environment. I have tried to ascertain what percentage of our original California Douglas Fir forest is left; noone seems to know, but there is general agreement that it is almost gone. Here we have, in trust in the public lands, some of the small fragment that remains, and we seem to feel that its highest and best use is for timber production. I simply cannot agree with this. The forest in question is less than a quarter of the timber production base of SYU 13 which in its entirety is expected to provide only six tenths of one percent of the lumber and wood products of the region. Can it be that the tiny amount of timber in question is of more lasting value to the human race than the intangible values associated with land as the Creator would have it? There are those of us who feel that the times are forcing us to recognize how important these intangibles really are; that this recognition is a sign of our greatness as a nation, and that the priorities of the FLPMA are a welcome demonstration of that recognition. It seems to many of us that the responsibility of the federal Government in this regard is particularly great in view of the fact that, self- interest being what it is, private landowners are ever more likely to convert their remaining natural lands to material production. While the highest value of these lands is spiritual, they have a wide variety of values such as seed areas for various increasingly threatened

COMMENT LETTER 20

forms of life, as is well recognized in the long litany of adverse impacts which are set forth in the EIS.

Without going into the matter any further, I would suggest that we should treasure our few remaining natural lands; that later generations will thank us much more for our foresight in preserving them than they will if we shovel them down the hopper along with all that went before. It is of course vital that we decide where we will grow timber, and that we make every effort to achieve a sustained-yield mode; the BLM's efforts in this regard are timely and appropriate, but let us remember- man does not live by bread alone. I believe that the most responsible action and the one most in keeping with the policies which govern BLM would be to preserve that little old-growth which remains. If that proves to be impossible, then I would urgently recommend the Managed Old-Growth alternative.*

Sincerely,

Peter O. Childs
Box 446
Alturas, Calif.
96101

P.S. Needless to say, there are a large number of people who are very grateful that Lilman Butte is recommended for withdrawal. It makes us feel that all is not lost; that sustained effort will bear fruit. We thank BLM for its responsiveness, and of course support said recommendation.

* (Necessarily, the proposed 15 old-growth preserves) including

COMMENT LETTER 21

November 19, 1980
P.O. Box 307
Garnerville, California
95440

District Manager
Bureau of Land Management
P.O. Box 940
Ukiah, California 95482

Dear Sir,

I am writing on behalf of EPIC, the Environmental Protection Information Center. We have reviewed the Draft Environmental Impact Statement, Sustained Yield Unit 13, 10-Year Timber Management Plan (EIS) and respectfully request that you give full consideration to our following comments on that Plan.

1. It is clear that even under the most desirable alternative (the "managed old-growth" alternative) that the protection given to old-growth habitat is very inadequate. This severe effect must be mitigated. Accordingly, we strongly urge full commitment to the proposed mitigation of the "old-growth reserves". We also request that the parcel at Tom Long Creek be added to this list of reserve parcels, and that any other parcels found later to be suitable also be included.

2. We strongly applaud the proposed designation of Gilham Butte as a Natural Area and we support its withdrawal from the timber production base.

3. The severe problem of erosion and sedimentation is quite inadequately assessed and mitigated in the EIS. This must be corrected.

4. We strongly applaud that there is no proposal to aerially spray herbicides and no proposal to use any phenoxy herbicides. We believe your stance is well justified from the points of view of public health, economics, and ethics.

5. We are concerned for a highly endangered plant, listed by the California Native Plants Society, that may still persist on the north side of Bear Buttes. Accordingly, we urge that BLM withdraw lands there from the timber production base.

6. We strongly support the withdrawal of additional lands from the area of Red Mountain. The areas of laterite are unique in the truest sense and must be preserved from further abuse.

7. We also strongly support withdrawal of parcels in and near the Sinkyone Wilderness. These comprise important elements of any viable reserve in the area.

The EIS contains many positive features and we congratulate you for these. Thank you for your consideration of the above comments. Please send us a copy of the final statement and the Record of Decision.

Sincerely,

for EPIC.

COMMENT LETTER 22

MATTOLE WATERSHED TAXPAYER'S ASSOC.

November 19, 1980

Ld Katlas
Acting District Manager
Bureau of Land Management
Box 940
Ukiah, CA 95482

Dear Mr Katlas:

The Mattole Watershed Taxpayer's Association is a group of landowners and residents of the Mattole River Watershed in the Gilham Butte area. Many of our members live adjacent to, or look out on, BLM parcels.

We must commend the BLM for its excellent and exhaustive review of the effects of its proposed timber management described in the Draft EIS. Much of the document reflects an uncommon sensitivity for the land, particularly in its description of wildlife and the importance of preserving old-growth forests.

The rationale outlined for preserving Natural Areas applies not only to Gilham Butte itself, but to all other BLM parcels in SYU 13. We feel very strongly that the best course of action -- one not covered in the EIS -- would be no logging at all on any of the BLM parcels. These parcels have a much greater value as preserves of a rapidly vanishing natural ecosystem, than they have for their meager timber output.

Our detailed comments on the EIS are attached, and we also enclose a packet of supporting documents.

Thank you for your continued responsiveness to our input.

Sincerely,

Maryles Bytheriver
member, Board of Directors

Box 671, Garberville, CA 95440

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MWTA COMMENTS ON

BLM TIMBER MANAGEMENT

DRAFT ENVIRONMENTAL IMPACT STATEMENT

FOR SUSTAINED YIELD UNIT 13

1. The MWTA supports the withdrawal of Gilham Butte from the Timber Production Base. The inherent geologic instability, erodable soils, and high rainfall of the Coast Range, combined with the steepness of the terrain on Gilham Butte, make it wholly unsuited to roading or logging. In addition, this 1700 acre block of old-growth forest provides an important habitat for many species of wildlife including the rare spotted owl. Gilham Butte also serves as a genetic bank for native plant and animal life. It is important that the Butte be maintained in its present pristine condition, and we are gratified that the BLM recognizes this fact.

2. The MWTA recommends the adoption of the Managed Old-Growth Alternative instead of the proposed two-stage shelterwood system. The Managed Old-Growth Alternative is less disruptive of the natural nutrient cycling through the forest ecosystem, and therefore will maintain greater site productivity than the proposed action. (see pages 4-40 and 4-65) Maintainance of soil fertility is, of course, essential to achieve the goal of a sustained yeild of forest products from BLM land.

MWTA comments / 2

The Managed Old-Growth Alternative would achieve greater natural regeneration because it results in a larger seed source, more shade, and greater soil moisture, as well as greater soil fertility. (see page 4-40) With the amount of old-growth dwindling rapidly on both private and public lands throughout the region, the old-growth conifers left on BLM-managed land provide important seed sources for future forests, and maintain the genetic diversity of locally-adapted strains essential for healthy, productive forests.

The Managed Old-Growth Alternative would cause less erosion from the cutblocks themselves than any of the other alternatives. (see page 4-37) This is important, not only for the maintainance of site productivity, but for the productivity of off-site areas, including downslope and downstream areas. Just as this alternative would cause less erosion, it would cause less sedimentation of streams. (see page 4-37) Thus, it would provide a healthier, more productive accuatic system.

The Managed Old-Growth Alternative would provide greater wildlife habitat, particularly species which require cavities, down woody material, and large conifers. (see pages 4-42 and 4-61)

Lastly, the Managed Old-Growth Alternative would result in forest areas which have more aesthetic appeal and recreation potential than any of the other alternatives. (pages 4-53 and 4-58)

Adopting the Managed Old-Growth Alternative instead of the proposed action would not make an appreciable difference in either regional employment or earnings, according to Table 4-9. The Proposed Action would provide only 0.14 of 1 percent of regional

COMMENT LETTER 22

MWTA Comments / 3

employment and 0.21 of 1 percent of estimated earnings. By contrast the Managed Old-Growth Alternative would provide 0.12 of 1 percent of regional employment and 0.18 of 1 percent of estimated earnings.

3. The MWTA strongly urges the adoption of the proposed mitigation listed in Table 4-8: the establishment of Old-Growth Reserves. The Draft EIS amply describes the importance of such blocks of old-growth to a wide variety of wildlife species. (see pages 3-20 to 3-26 and 4-41 to 4-53) In establishing such reserves, the BLM has the unique opportunity of preserving representative samples of natural ecosystems which may soon be found nowhere else. We can think of no greater accomplishment for BLM land management than to be able to hand down to future generations pristine examples of our natural heritage.

In addition to the 18 parcels listed in the Draft EIS, the MWTA urges the BLM to consider setting aside additional old-growth reserves, including the scattered blocks surrounding Gilham Butte and the parcel spanning the Tom Long Creek near Harris.

4. The Draft EIS contains several important errors which should be corrected.

22-1 A. Water Yield. The EIS incorrectly states that the increased streamflows on smaller mountain streams caused by logging would last longer through the dry season and would not affect flood peaks. (see pages 3-7 and 4-8) Research studies conclusively show that logging does, in fact, increase peak flood flows. We refer you primarily to Forests and Water, by Henry Anderson, et al. of the US Forest Service.

COMMENT LETTER 22

MWTA Comments / 4

From their own researches, and a comprehensive review of nearly 600 references on forest hydrology, the authors summarize what is known about the forest influences on water resources. Anderson also discusses the effects of forest practices on streamflows.

Anderson's work points out that forests regulate the amount and timing of streamflows, and consequently of flooding. Forest soils absorb rainfall, reduce surface runoff, increase underground seepage and prevent erosion. The forest soils serve as a reservoir of stored water, percolating it downslope to feed headwater streams and maintain year-round streamflows. The evapotranspiration of forest vegetation increases soil-water storage capacity in the fall, allowing the soil to absorb early winter storms — the most frequent flood producers. In this way, forest soils and forest vegetation reduce peak flows and prevent smaller floods.

Conversely, the removal of forest cover and disruption of the forest soil increases peak flows. The greater basal area of trees removed from and forested watershed, and the greater the soil disturbance, the greater the increase in streamflows during periods of heavy rainfall or snowmelt, according to Anderson. The increase in the severity and frequency of peak flows caused by logging, increases streambank erosion, thus swelling streamflows and further increasing flood damage.

Forests can prevent smaller floods by retaining a certain amount of water and retarding the flow, but they are powerless to prevent really large floods. However, the presence of forests substantially reduces the damage from these floods, by preventing sediment and debris from swelling flood flows.

MWTA comments / 5

According to Anderson, "Extreme high flows may not only produce high yields of sediment, but may create unstable channel banks, so the watershed is more vulnerable to erosion for some time to come. ... For example, the first year after the December 1964 flood in north coastal watersheds of California, sediment production increased by as much as 33 tons per acre. ... Contrasting two watersheds, one with the average amount of poor logging (19.2 acres per square mile or 3% of the total area) and the other with no logging, the watershed with the combination of poor logging and a large flood had a 70% greater increase in sediment after the flood."

Two studies of the damage caused by the 1964 flood to streams flowing off of South Fork Mountain in Trinity County, also conclusively show that logged watersheds suffered more severe damage than unlogged watersheds. (See: California Department of Water Resources: South Fork Trinity River Watershed Erosion Investigation, 1979; and D. W. MacCleery: Logging on South Fork Mountain, A Look at Past Activities and Implications for Future Management of the Area, USFS, 1974)

According to the DWR report, flood damage in logged watersheds results from a combination of factors, including "heavier snowpack on logged areas (more runoff as snowmelt proceeds), increased overland flow due to compaction (less infiltration and subsurface flow), logging debris and roadfill blocking waterways, entrainment of particles from bare soils acting to increase the erosive power of water, and interception of surface and subsurface flow by roads and skid trails, resulting in diversion and concentration of surface flow. These processes have cumulative downslope and downstream impacts."

B. Sedimentation. The Draft EIS contains a significant error in its evaluation of the effects of sedimentation on fisheries: "At this time it is probably safe to say that a slight increase in sedimentation associated with good logging practices would not be significantly detrimental to fishery resources in this North Coast area." (page 4-25)

22-2

First of all, the average figures used in the Draft EIS to represent normal sediment yield for undisturbed forest and increased sediment yeild from the proposed action are meaningless. Sediment yeild must be measured on a site-specific basis. For example, the US Forest Service has measured increases in suspended sediment of 700% to 518,000% following logging in the Six Rivers National Forest (Off-Site Effects of Roads and Clearcut Units on Slope Stability and Stream Channels, Fox Planning Unit). This extreme range is due to the variation in geologic stability of various logging sites. Logging and road building on dormant or active landslides can trigger mass movement which can totally devastate the downstream fisheries. On the other hand, logging on stable slopes may increase sedimentation only slightly, and result in only minor impacts on fisheries.

22-3

Fortunately, a thorough geotechnical analysis of proposed logging sites can evaluate slope stability and landslide hazard prior to any potentially damaging activities. We feel that this type of analysis is essential in order to keep the environmental impacts of the proposed action within acceptable limits.

Secondly, the predicted sedimentation increase of between 382% and 765% cannot be described as "slight" and would definitely have a

major impact on fisheries. The Platt's curve, developed by the US Forest Service, correlates the percent increase of delivered sediment to percent decrease of fish population. It has been used by the Six Rivers National Forest (Timber Harvest Scheduling Study, 1979) and the California Department of Fish and Game (Smith River Draft Waterway Management Plan) to predict impacts of logging on fisheries.

While the Platt's curve cannot be applied to any geologic province without modification, it does give an example of quantified impacts of sediment on fish production:

22-4

% increase of delivered sediment	% decrease of fish population
15	10
50	25
100	50
600	100

Using this formula, the proposed action, if it results in the sediment increase predicted in the Draft EIS, would result in a 75% to 100% decrease in fish populations!

Again, we must stress that site-specific impacts would be much greater if logging or road building occurs on landslides, than on stable slopes.

C. Erosion due to removal of trees. The Draft EIS states that "it is not the temporary elimination of trees in a timber harvest operation that causes the damage, but the improper techniques used in the removal of the trees and in road construction." (page 4-2)

22-5

Improper logging and road construction do cause tremendous damage, but the removal of forest trees, in and of itself, causes both increased landsliding and surface erosion by removing the root support of unstable slopes and interrupting the natural water flows including opening up

the land to rain-drop impact.

Increased landsliding due to the removal of root support on unstable slopes, is dealt with in the Draft EIS on pages 4-3 and 4-5. We refer you also to the work of Robert Ziemer, of the USFS Arcata field station. His research indicates that there is often a crucial gap between the decay of the slope-supporting roots of logged old-growth conifers, and the growth of the roots of the regenerating young growth. In his mixed conifer study area, he found that 24 years after logging 90% of the old roots had decayed, while the young growth had only achieved 10% of the original root strength in the slope.

He concludes that "the decay of roots following timber harvest can cause reduced soil strength which can lead to landslides and increased stream sedimentation." (Roots and the Stability of Forested Slopes, 1979)

The CDF Erosion Study, led by geologist Carl Hauge, also addresses the impacts of the removal of forest trees. (Forest Practice Rules and Soil Erosion in the Coast Forest District, 1979) Cutting the trees opens the land to increased erosion by wind, water, and gravity because it results in "higher soil moisture due to decreased evapotranspiration; decreased intercention storage of water; altered distribution of water to soil; decreased litter production; decreased soil microbial activity and organic matter; increased insolation reaching the soil; and increased wind velocities."

22-6 D. Site Productivity. In discussing the impacts of the proposed action on soils, the Draft EIS states: "Site productivity would be only moderately affected because a high proportion of the total tons eroded is less productive subsoils..." (page 4-2) This statement

COMMENT LETTER 22

ignores the serious impacts of surface erosion on loss of soil nutrients.

Organic nutrients are stored in the humus and clay found in the top 6" (15cm) of the forest soil. The humus, lying on top of the ground, and the clay, being light and fine, are more vulnerable to leaching than is the heavier mineral soil below. Runoff from disturbed land in buthlocks and roads often contains high concentrates of soluable organic nutrients -- even when it is visibly clear. (see Robert Curry, Soil Destruction Associated with Forest Management and Prospects for Recovery in Geologic Time, ASB Bulletin Vol 18, No 3, July 1971)

Elsewhere the Draft EIS does discuss the impacts of the proposed action on nutrient cycling in more realistic terms, stating that it would cause some disruption of nutrient cycling and loss of nutrients through water transport (page 4-12), and later that erosion would affect on-site forest productivity and that the long-term potential for growth loss appears to be substantial. (page 4-65)

The protection of the organic nutrients in the soil to maintain current site productivity is, of course, essential in order to achieve a sustain yeild of timber from BLM lands.

22-7 5. Please add the following information to Table 3-4 Streams in SYU 13 Timber Base that Contain Fish (page 3-29 to 3-30): In years of normal rainfall the Mattole River supports a king salmon run, as well as the steelhead and silver salmon noted. A tributary to the Mattole, Blue Slide Creek, flows through a BLM parcel in T3S R2E; it supports king salmon, silver salmon, and steelhead.

MWTA comments / 10

Also, several tributaries of Mattole Canyon Creek, itself a tributary of the Mattole River, flow through BLM parcels located in T3S R2E. The Mattole Canyon Creek is an important steelhead spawning and rearing stream.

22-8 6. The arbitrary width buffer strips described in the Draft EIS would not always be adequate to protect the stream from excessive sedimentation.

In the North Coast, shallow debris slides along streams often form at the toe of deep-seated rotational slides. Disturbance of the slope integrity or removal of the vegetative cover, as occurs in logging and road building, above the buffer strip can trigger massive movement of material downward. This material winds up in the stream — regardless of the measures taken in the buffer strip.

For example, the CDF Erosion Study reports of a log landing constructed on a naturally unstable slope which failed and contributed over 10,000 cubic meters of sediment to the stream below. Similarly, the Fox Unit Study cited above shows that landslides associated with roads and cutblocks easily pushed through buffer strips and deposited sediment and debris into streams.

Overland runoff beginning in cutblocks and roads above the buffer strip concentrates in rills, gullies, culverts, and intermittent creeks as it moves downhill. Both natural creeks and erosion-caused gullies (particularly at the outlet of culverts) act as tunnels carrying sediment-laden runoff and debris through the buffer strip into the stream.

COMMENT LETTER 22

MWTA comments / 11

During times of heavy rainfall these creeks and gullies are further eroded by the sediment-laden water cutting into their banks, which deposits more sediment into the water, causing even further erosion of streambanks in a self-perpetuating cycle which creates larger and larger gaps in the buffer strip and allows more and more sediment and debris to reach the "protected" stream.

Landslides — which push through the buffer strips — can be prevented, but there is no feasible way to repair the damage once it has been done. Unstable geologic areas can be identified with aerial photography and mapped. The landslide potential of an area can be evaluated in a geotechnical report and appropriate measures taken to prevent the triggering of mass movement.

Along streams, the buffer strip should include all unstable geologic areas to the crown of the slide. Disruption of the integrity of the slope from road building or heavy equipment operation, or the removal of the vegetative support from logging, should be avoided on all active or dormant landslides.

The buffer strip should include the inner gorge of the stream. This is the steep (greater than 70%) slope between the stream channel and the first break in slope. The width of the inner gorge generally increases with successive larger streams, but is not necessarily constant along a single stream channel. Because of the nature of the geologic formation of the Coast Range — the downcutting of fast-moving streams through weak material — these gorges are structurally unstable

MWTA comments / 12

To be effective, the buffer strip needs to encompass 1½ times the inner gorge of the stream. (see Off-Site Effects of Roads and Clearcut Units on Slope Stability and Stream Channels, Fox Planning Unit)

Gullies, draws, intermittent creeks, ephemeral creeks, and culverts all carry water to larger streams. When natural drainage patterns are disrupted from logging and road building, these small creeks can carry large volumes of sediment, debris, and organic materials into larger streams. Therefore, all waterways should be protected with a buffer strip.

COMMENT LETTER 22. Mattole Watershed Taxpayers Association, Garberville, Ca.

22-1 Issue: Water Yield.

Pages 3-7 and 4-8 do not state that logging would not affect flood peaks. They state, "...increased yield does not add significantly to flood peaks" (Page 3-7) and, "Flood peak flows and increased water yield would not be appreciably affected by partial timber cutting..." (Page 4-8). As Anderson (1976, p. 30) points out, "The impact of timber harvest on the water resource depends upon the severity of the changes in vegetal cover, the exposure and compaction of the mineral soil, and the proportion of watershed affected (Megahan 1972, Stone 1973)." Anderson also says (p. 45), "Timber harvesting increases water yield primarily by reducing evapotranspiration." Another study by Harr (1980) concludes that annual water yield and size of instantaneous peak flows were not significantly changed by logging. Harr's study was on small clear-cuts totaling 25 percent of the watershed.

22-2 Issue: Fisheries.

See responses to Issues 1-2 and 22-4.

22-3 Issue: Sediment yield.

It is understood that due to the variability of individual sites, the applicability of "average figures" will not always provide the needed measure of impact determination. Consequently, as noted on Page 2-12, "Environmental Assessments (EAs) will be prepared for discrete timber management projects to evaluate site-specific problems."

22-4 Issue: Sedimentation - fisheries resource.

It is acknowledged that the use of average figures and methods such as Platt's curve without extensive site-specific data has limited applicability. The average sedimentation figures used in the draft analysis to represent normal sediment are broad estimates using the best available watershed data for the 10-year period before committed mitigations. In the absence of site-specific data, they give some basis for judging relative impacts. The predicted sedimentation increase from 29 to 58 tons per square mile to about 222 tons per square mile is within the limits of acceptable sediment for fisheries habitat. Compare the 222 tons per square mile with sediment in other streams shown in Table 3-2.

Because only small areas on a few of the fish streams will be logged over a 10-year period, the percent increase of delivered sediment will be negligible. Platt's curve was most likely developed on the basis of a high base level of delivered sediment. For example, a stream with one milligram per liter (mg/l) sediment would have a 1000 percent increase if sediment increased to 10 mg/l. Fish population would not be affected.

The commitment to accepted mitigations, established timber management parameters, and site-specific environmental assessments, coupled with the Bureau's policy of continual update of its inventory base and planning system, will afford the fisheries resource full consideration.

22-5 Issue: Erosion from tree removal.

The study by Robert Ziemer (1980) of the U.S. Forest Service deals with the effect of root decay after timber harvest on clearcut blocks. However, in another study by Ziemer (undated) he concludes that under a shelterwood harvest system, loss in soil shear strength is much less than in a clearcut. After the initial 50 to 70 percent overatory removal, the live root systems from the remaining trees will begin to expand to occupy the soil previously occupied by the now dead root system of the cut trees. Ziemer assumes that this root expansion will be accomplished within eight years. Immediately after the initial cutting, growing space will be available for the establishment of seedlings. When the mature trees are cut, about ten years after the initial cut, their root systems will, in turn, begin to decay. The seedlings then start to make rapid growth and begin root expansion.

Ziemer concludes further that if the root decay rate of the initial cut trees is slower than the root growth rate of the residual trees, net root reinforcement in the cut area might be greater, for a time, than that in the uncut forest.

Slope stability considerations are a complex array of many factors, but for most management decisions a qualitative understanding of the principles of slope stability must suffice.

22-6 Issue: Site productivity.

Surface erosion does have an impact on the loss of soil nutrients. However, Anderson's study (1976) shows that careful logging may disturb no more than 10 percent of the area. Overland flow, the major cause of surface erosion, may be of little consequence. The impact from surface erosion was considered in concluding that site productivity would be only moderately affected.

RESPONSE LETTER 22

22-7 Issue: Streams in the timber base.

In years of normal rainfall, King salmon may occur in portions of the Mattole River within small portions of BLM lands in the SYU 13 timber base.

Blue Slide Creek lies near but not within an 80-acre isolated BLM parcel in T. 3 S., R. 2 E., Sec. 35. Map 2-2 misrepresents the actual relationship of the creek to the parcel. The southwest corner of the parcel borders on what appears to be a permanent side drainage. Intermittent drainages occur on the northwest and southeast corners. Tentative buffer zones have been assigned, and if logged in the future, the parcel would receive site-specific analysis and mitigation.

Mattole Canyon Creek and a side drainage of the Creek pass through two BLM 40-acre parcels in T. 3 S., R 2 E. One 40-acre parcel was completely removed from the timber base during the TPCC inventory because of steepness and unstable soils. The northeastern portion of the other parcel was removed for the same reasons. If logged, the small remaining portion will receive site-specific analysis and mitigation.

22-8 Issue: Buffer Strips.

See response to Issue 1-2.

Nov 20, 1980

Dear B.L.M.

23-1 I want to comment you for withdrawing Gilham Butte from the timber production base. It is a delicate area and should be left untouched. We see the establishment of old growth reserves as a positive step and would like to see more preserved in these critical areas.

I have a few comments on the cuctional yield unit 13 Timber Management E.I.S. it is well done and shows real thought. There are a few discrepancies though. Logging increases flooding in winter and increases sediment in streams which decreases fish habitat. Surface erosion comes when trees are cut and tractors landskides. Also reducing site productivity. In areas as steep as ours and as unstable it is smart to preserve the land and not cause other problems. Thank you

23-2

Sincerely
Linda Edwards

COMMENT LETTER 23. Linda Edwards, Redway, Ca.

23-1 Issue: Gilham Butte.

See response to Issue 7-1.

23-2 Issue: Fish habitat.

See response to Issue 22-1. Timber harvesting and its associated roads can and often do cause serious erosion and sedimentation. The amount of sediment and damage to fish habitat varies widely with topography, climate, soils, and the amount of soil disturbance, which depend on such things as care in logging, intensity of cut, and the equipment used. Responsible logging can keep damages within bounds.

FRom. W. R Edwards
P.O. Box 842
Redway CA. 95560

Nov. 20, 1980

TO the DISTRICT MANAGER. B.L.M.;
IN REGARDS TO SUSTAINED YIELD UNIT 13.
TIMBER MANAGEMENT ENVIRONMENTAL IMPACT STATEMENT.
I WOULD LIKE TO MAKE A COMMENT ABOUT THIS DRAFT.

24-1 FIRST: I SUPPORT the WITHDRAWEL of GILHAM BUTTE FROM the TIMBER PRODUCTION BASE. this IS JUST PLAIN GOOD SENSE.

SECONDLY: I RECOMEND THAT YOU CONSIDER PRESERVING the ISOLATED PARCELS IN this AREA, AS A STABALIZING FACTOR FOR the SURROUNDING DEVISTATED LAND. this IS MOSTLY VERY STEEP LAND WITHOUT ACCESS.

THIRD - I RECOMEND the MANAGED OLD GROWTH ALTERNATIVE, INSTED OF YOUR PROPOSED ACTION.

THANK YOU
Wesley R. Edwards

COMMENT LETTER 24. Wesley R. Edwards, Redway, Ca.

24-1 Issue: Gilham Butte.

See response to Issue 7-1.

Dear District Manager of B.L.M., Nov. 20, 1990

25-1 I fully agree with the decision to take Gilham Butte off the timber harvest plan. I also recommend that the surrounding parcels be protected. The land around these other parcels is very unstable and any more disturbance would be devistating. Not only to the fish in the river, but to us and our water and land.

I am in favor of the Managed Old Growth Alternative instead of your proposed action.

Thank you.
Sincerly Mrs. M.W. Lyon

COMMENT LETTER 25. Mrs. M. W. Lyon, Redway, Ca.

25-1 Issue: Gilham Butte.

See response to Issue 7-1.

Nov. 18, 1985

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, Calif. 95482

Dear Sir:

26-1 I would like to strongly support the BLM decision to remove Gilham Butte from the timber base. As a concerned resident of this area and as a geologist I have already given written testimony expressing my concern that this area be preserved.

I would like to thank the hard working personell of your office for the fair and professional manner in which they have dealt with the Gilham Butte area

Sincerely yours,

William Cartwood

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COMMENT LETTER 26. William Cartwood, Redway, Ca.

26-1 Issue: Gilham Butte.

See response to Issue 7-1.

6415 Regent Street
Oakland, California 94618
22 November 1980

District Manager
BLM
P.O. Box 940
Ukiah, California 95482

Dear Sir:

I understand that a draft Environmental Impact Statement has been prepared by your district for timber management in Sustained Yield Unit 13. Included therein in the timber harvesting base is a tract of ca. 165 acres of BLM land on the north side of Bear Buttes near Miranda, southern Humboldt County.

As past chairman of the Rare Plant Committee of the California Native Plant Society, I should like to bring to your attention the possibility that Astragalus agnicidus might still exist somewhere on this acreage. This plant historically has been known only from the Tostan and Peirce Ranch near Bear Buttes at an altitude of ca. 2500 feet and has not been reported for some 25 years. It is considered possibly extinct in the revised edition of the California Native Plant Society's Special Publication No. 1. As such it merits special attention in seeking out additional stands. Every effort should be made carefully to search for it in this acreage before committing the area as part of the timber resource base. Otherwise, we suggest that the tract be withdrawn until such a search becomes possible. 27-1

The biology of this plant, collected only two or three times, is poorly understood. It is said to have appeared in abundance on logged-over areas, so that it may be that it benefits from disturbance of one sort or another. If it should be recovered, it might prove that logging, carefully conducted in a gradual manner, would be beneficial to its survival. Until more is known, it cannot be said.

Sincerely,

Alice Q. Howard

Alice Q. Howard

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COMMENT LETTER 27. Alice Q. Howard, Oakland, Ca.

27-1 Issue: Withdrawal of the Bear Butte public land parcel to protect Astragalus agnicidus.

The Bear Buttes tract is located in the Scattered Blocks Planning Unit of the North Coast Resource Area. As mentioned on Page 2-4, the planning process is not completed for this unit. Currently, this tract is proposed as being available for intensive forest management activities. As stated on Page 2-12 of the draft environmental impact statement, environmental assessments will be prepared for discrete timber management projects. Additionally, seasonal inventories are required prior to the initiation of timber management projects. As mentioned on Page 2-17 of the draft statement, "Any possible impacts involving endangered species will be resolved through cooperation and consultation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service as required by Section 7 of the Endangered Species Act of 1973, as amended 1978 and 1979."

COMMENT LETTER 28

Box 4675
Rodeway, CA 95560
20th November, 1980

Dear Sir,

I was glad to hear that Gilham Butte has been proposed for exclusion from timber harvesting. As you know, this lovely area of old-growth fir is of irreplacable value to many local residents, and, I believe, also to many others — perhaps increasingly so over the coming years. I hope the final EIS will finalize protection for this unique and critical area.

Sincerely,
Gail Ann Vincent

COMMENT LETTER 29

November 22, 1980

29900 Highway 20
Fort Bragg, California 95437

District Manager
Bureau of Land Management
555 Leslie Street
Ukiah, California 95482

For the Public Hearing Record

RE: Draft EIS for 10-year Timber Management Plan - Sustained Yield Unit 13.

Dear Sir:

Please include these comments as part of the public hearing record on the Draft EIS for Sustained Yield Unit 13, 10-year Timber Management Plan.

I believe that, with this document, BLM has made a very fine beginning towards a true sustained yield plan which recognizes the importance of all forest and watershed resources.

However, I believe that more work is needed in the following areas, and request that the Final EIS end Plan deal with these problem areas fully and completely:

Fisheries

29-1 The effects of logging on watershed erosion and sedimentation of streams, although generally well known, are not dealt with exhaustively in the DEIS. The effects of road building, slumps and earthflows, stream sediments, high erosion hazards and rates, raised stream temperature, and other logging impacts on the important fisheries resource should be fully evaluated in the Final EIS.

Old Growth Ecosystems

29-2 These are inadequately dealt with, and deserve much more attention. The destruction of old-growth habitat demonstrably leads to a reduction in species diversity, and may increase the susceptibility of the forest ecosystem to destructive diseases and insect vectors. There are also unique recreation values associated with old-growth forests. I would request that the problem of old-growth ecosystem loss be evaluated in the Final EIS, and alternatives to this loss presented for public review.

Thank you for your consideration, and for an overall fine effort to conserve forest resources, and to evaluate environmental impacts deriving from plan implementation.

Ron Guenther

COMMENT LETTER 29. Ron Guenther, Fort Bragg, Ca.

29-1 Issue: Fisheries.

Logging, road building, and other actions associated with the proposed timber management program for SYU 13 are specifically addressed throughout the environmental consequences chapter of the statement. Additional input regarding potential adverse impacts to the fisheries resource will be incorporated as it becomes known through the completion of the planning process and during activity planning. As stated on Page 2-12 of the draft, site-specific environmental assessments will be prepared for discrete timber management projects.

29-2 Issue: Old-growth Ecosystems

It is well known that mature and old-growth forests are significantly more diverse (Thomas 1979, Franklin et al. 1979, Bull 1978, Maser and Thomas 1978) and that mature plant communities are generally more stable than young communities thereby adding a measure of stability to the local landscape (Odum 1963). Large blocks of old-growth forests are more stable than small blocks. It should be clear that old-growth forests, as depicted in Figure 3-3 (Page 3-23), are much more diverse than the proposed regulated future forests described and discussed in the draft environmental impact statement (Pages iii, 2-11, 2-13, 2-14, 2-18 through 2-25, 4-14, and 4-15).

Because old-growth forests possess a greater variety of habitat components (Figure 3-3), they can support a greater variety of wildlife species. The draft statement stresses that old-growth-dependent species require the various habitat components and that intensive timber management practices will remove components and severely alter existing forests (Pages 3-22 and 3-23).

Appendix 3-3 includes the habitat components required by representative wildlife and emphasizes old-growth-dependent wildlife species subject to impacts from the proposed action(s). Using primarily forest-dependent species, Pages 4-17 through 4-24 discuss how the discrete actions of the proposed intensive timber management parameters would impact the various old-growth habitat components and ultimately wildlife. Figure 4-2 (Page 4-43) presents an example of the potential decrease in species from removing dead and down material from seral stages of forests, including mature stages. Additional examples appear in a report by Solis and Toth (1979).

RESPONSE LETTER 29

Table 4-7 attempts to describe the overall impacts to wildlife habitat that would result from the proposed timber management practices. Although this is quite difficult in many cases because habitat would not be completely destroyed but would remain in some degree of suboptimal condition, the table indicates that habitat would be very suboptimal for species dependent on mature and old-growth forest.

Available information does not indicate a demand for recreation opportunities associated with old-growth, per se, but rather for hunting (Pages 3-31 and 3-32). Deer hunting would command the greatest interest, and cutover areas provide better opportunities than old-growth (Page 4-26). In any case, for recreation to occur, both physical and legal access would be required (Page 3-60). The need for old-growth Douglas-fir natural areas is stated on Page 3-32. Wilderness areas that include forest types are being considered (Page 3-42). Numerous other references regarding the loss of old-growth are made throughout Chapter 4 and in Appendix 4-1.

Natural Resources Defense Council, Inc.
25 KEARNY STREET
SAN FRANCISCO, CALIFORNIA 94108
415 421-6561

Washington Office
1725 I STREET, N.W.
SUITE 600
WASHINGTON, D.C. 20006
202 223-8210

New York Office
122 EAST 42ND STREET
NEW YORK, N.Y. 10017
212 949-0049

November 21, 1980

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, California 95482

Dear Sir:

This letter constitutes the comments of the Natural Resources Defense Council, Inc. (NRDC) upon the Draft Timber Management Environmental Impact Statement for Sustained Yield Unit 13. Overall, we feel that the authors of this document have done a fine job of assembling and analyzing alternatives for the management of SYU 13. We feel, however, that the final environmental impact statement and plan could be improved in several important respects.

The most important of these is the need for the final plan to provide amply for the protection of old growth habitat in the timber production base. Old growth ecosystems are a vital resource, containing scientific, economic, aesthetic, and recreational values of great importance. The genetic reservoirs they harbor are of untold significance to us and our successors; the health of many watersheds is dependent upon old growth stands. 1/

But old growth is also becoming an increasingly scarce resource. It is incumbent upon public land managers, who are entrusted to provide for multiple uses from publicly-owned forest lands, to ensure that a significant portion of this vital resource is maintained. Unfortunately, the proposed plan and all alternatives but one for SYU 13 take a short-sighted approach to management of this forest land: Its management is to be predicated entirely upon the production of a single market commodity, timber. The dedication of thousands of acres of lands with many other important values, albeit largely nonmarketable ones, to one purpose would be a sad disservice to the public and a derogation of the Bureau's duties as

1/ See 8 Environmental Law 497, Juday, "Old Growth Forests" (Winter 1978).

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Ukiah District Manager
November 21, 1980

PAGE 2

multiple-use manager. The importance to the public of a continuing resource of old growth is acknowledged by the draft document itself, which indicates that the protection of old growth and the wildlife dependent theron was the highest priority item identified "by scoping participants and by public input during the planning process." P. 2-1 2/

The proposed plan and four of the alternatives would eliminate all old growth from the timber production base. P. 4-67. The only differences among them are the time period in which this would occur. The draft's analysis of impats makes clear the profound consequences. Elimination of all old growth effectively means the elimination of species dependent upon old growth habitat. These include rare plant species and such animal species as the goshawk, the spotted owl, the pine marten, the red tree mouse, the red-backed mouse, and the fisher. Pp. 4-17, 4-66. The total removal of old growth from the production base means the extirpation of old growth ecosystem enclaves which could repopulate other portions of the forest if future policy allows a return of these to old growth conditions. P. 4-24. It means a loss in vertical diversity of stands and in horizontal diversity, the latter due to the anticipated large size of cuts. Id. Finally, it means the loss of the few remaining large, fully integrated virgin forest ecosystems in SYU 13. P. 4-27. The draft acknowledges that the loss of old growth is irretrievable under the terms of the proposed plan. P. 4-27.

Only one alternative, the managed old growth alternative, would preserve any old growth trees, snags, and down logs. P. 4-41. We are very pleased to see this progressive approach to multiple-use forest management seriously considered in the draft EIS and strongly urge its adoption in the final plan.

However, as the draft document frankly concedes, the managed old growth alternative alone will not provide adequate protection to old growth values. P. 4-53. Among other things, broad-leafed trees and the crucial foods they supply wildlife will not be retained. The majority of the forest will be on 100-year rotations. The old growth trees left under this alternative will provide only a 15 to 20% canopy. P. 4-42. Finally, there will be no areas of old growth sufficiently

2/ All page references are to the draft document.

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COMMENT LETTER 30

large to provide suitable nesting habitat for goshawks, spotted owls, and like species.

For these reasons, the mitigations discussed in the draft need to be implemented along with the managed old growth alternative in order to provide sufficient protection to old growth resources. Pp. 4-53 to 54. Of these proposed mitigation measures, the most important is the creation of the system of reserves outlined in the draft documents at Table 4-8. Id. Although the documents maintain that more study is needed in order "to recommend all of the most desirable reserve areas at this time[,] . . . sufficient information is available to make the recommendations contained in Table 4-8." P. 4-73.

We urge the BLM to adopt its recommended network of reserves and to conduct the necessary inventories and studies to determine other appropriate reserve areas as soon as possible. We also recommend that the proposed mitigation measures in Table 4-8 for those forest lands which are committed to harvest also be implemented fully as part of the managed old growth plan.

The final plan document should thus include both the reserve system and the harvest land mitigations in the list of "committed" mitigations present in the draft. Pp. 26-31. The final should also contain more information about the components of the recommended reserve system, and Figure 4-3 should be modified to show how much old growth habitat would be lost and how much retained under the managed old growth plan with the recommended old growth reserves.

Our other concerns about the draft document are admirably detailed in the letter of comment submitted to you by Mr. Robert Sutherland, dated 15 November 1980. Rather than repeat those comments here in summary fashion, we hereby endorse and incorporate by reference Mr. Sutherland's comments on the need for more and more accurate information on the effects of the plan and alternatives on erosion and hence soil productivity, fisheries, and water quality, on the need for enlargement of the treatment of endangered species, and on the need to discuss fully a monitoring program. We also join Mr. Sutherland in expressing our appreciation of your rejection of aerial spraying of herbicides.

Thank you for this opportunity to comment upon the SYU 13 Plan and EIS. We sincerely hope that you will adopt the

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managed old growth plan with an ample old growth reserve system. We are encouraged by the fact that the draft proposes and analyzes such a possibility, which would certainly make SYU 13 a model of enlightened multiple-use forestry for public land managers everywhere. Feel free to contact me if I can be of any assistance in your consideration of these comments.

Respectfully submitted,

Trent W. Orr
Attorney, Forestry Project

TWO/jt
cc: Robert Sutherland
Deane Swickard

November 22, 1980.

To Dean Stepanek, District Manager: Regarding EIS for SYU 13

As a forestry workers' collective based in SYU 13, we of New Growth Forestry Services have a vital concern for the long lasting health and productivity of the publicly owned timber lands managed by the BLM.

The proposed timber management plan and the suggested "alternatives" raise some strong questions in our minds.

The EIS considers five alternatives to the proposed ten year timber harvest plan in the 48,000 plus acres-ranging from intensive "accelerated" harvest to a supposed "No Action," to a managed old growth plan. Nowhere in the alternatives however, is a real "no action" alternative provided. The EIS reports that the BLM's continued commitment to multiple use resource management and enactment of FLPMA, renders such an alternative "not viable."

67

31-1

Among other reasons given for the alternatives selected, public demand for accelerated harvest was noted first. However, we wish to point out that clearly not all the public is in favor of accelerated harvest. In fact, the EIS on page 3-59, and 3-60, (in contradiction?), admits many are concerned that resource uses, (i.e. logging and mining), will alter the land in such a way that soils, vegetation, wildlife, and primitive recreation values will be irreversibly damaged.

31-2

Does not this concern fit in with the Bureau's expressed purpose of managing public lands in a manner cognizant of the "Nation's need?" Why then is not the alternative of no removal old growth considered?

Various tradeoffs with each alternative plan are weighed throughout the EIS, yet the final conclusions on overall impact of each plan is, we feel, further proof of the incompleteness of the alternatives provided in this document.

COMMENT LETTER 31

31-3

Page 4-70 states that the loss of old growth is "essentially irretrievable," although if rotation were extended any time to 200 years or older, the old growth forest could become re-established. None of the alternatives provides for such a program. Why not?

Is it not the BLM's responsibility to manage "prudently" the forests, with an eye on insuring a diversity of wood quality, including "board" lumber, for future generations?

Each plan provides for the eventual cutting and conversion of the existing timber production base to young stands. That in itself can have far-reaching ramifications not explored in the EIS. The utilization of smaller logs involves automated milling procedures which produce a poor quality end product-plywood, presseboard, etc; often eliminate the small time wood product producer; and further cement the corporate conglomerates into positions of market control. Labor's position will be subject to the policies of but a few timber industry employers, and lumber quality will diminish while at the same time the need for wood replacements will grow.

The EIS echoes industry's position that the current shortage of harvestable timber on private lands should be supplemented through the harvesting of publicly owned timber, otherwise production will decline, and employment will subsequently fall. We propose that stance is not honest.

Is it not true that the high quality lumber gleened from the harvesting of old growth reserves will not meet the timber industry's need for smaller, poor quality logs to be utilized in the production of plywood, laminated lumber, etc? The old growth lumber, due to its high quality and increasing unavailability will undoubtedly be marketed at a high price as expensive siding, and it will fail to offset the public's demand for cheaper wood products. Are future generations expected to pay for the mismanagement of the private sector's inventories?

We also wish to express concern on the issues of sedimentation and wildlife. The loss of habitat for sensitive endangered or threatened species cannot be taken

lightly. Note the increasing numbers of extinct species. The EIS comments that with the exception of the managed old growth option, all the alternatives including the proposed action will result in a "greatly impoverished habitat" for the forest dependent wildlife."

This is unacceptable to us, particularly in light of the fact that loss of this resource is also "irretrievable." The proposed mitigation measure to establish large blocks of undisturbed natural and old growth forest is a step in the right direction.

The impacts to the soil from both road construction and compaction need more mitigation. The "irretrievable" loss, whether immediate or eventual, of 7,000 plus tons of productive forestland should not be left open to possible correction at the time of contract negotiation. This does not guarantee protection.

In conclusion, New Growth recommends a more intensive management program, achieved through long term contracts, (three to five years), involving multiple management activities such as treeplanting, thinning, erosion control, and road maintenance. Such a long range program would lower contract administrative costs--hence future lumber prices--and could include provisions for guaranteed survival in the treeplanting program.

Finally, we would like to urge the BLM to hold off on harvesting old growth stands. While such a program might drop production levels and require us to "bite the bullet," it would insure that the timber resources will remain in the future and a truly sustained yield will be accomplished.

Thank you for allowing us to comment on the program.

Sincerely,

Jackie Rumble
New Growth Forest Services
Box 61,
Ukiah, Calif.
95482

COMMENT LETTER 31. New Growth Forest Services, Ukiah, Ca.

31-1 Issue: No action alternative.

In the case of a Bureau-initiated motion, a "no action" alternative is a decision to do nothing different than what is already being done; this is not a "no harvest" alternative (BLM Manual 1792.44E8a(1)).

31-2 Issue: No removal of old-growth alternative.

Alternatives are alternate ways, means, or locations to achieve the objectives of the proposal, with the exception of "no action" (BLM Manual 1792.44E8). The "no harvest" alternative was deemed unviable (see response to Issue 34-1). Similarly, an alternative of "no harvest of old-growth stands" would eliminate any timber program where stands are almost all mature and overmature (Figure 3-1, Page 3-18).

31-3 Issue: 200-year rotations.

Considering the stand structure (Figure 3-1) and relatively high costs of managing scattered lands, an overall 200-year rotation would not meet the basic objectives of the proposal. Current constraints of nondeclining evenflow would require that existing volume be carried until younger stands reach rotation age, yielding small returns.

Dear BLM

32-1 I Very strongly support the decision to remove Gilham Butte from the Timber Base.

Thank you,

Peter Revotskie

Peter Revotskie
Box 373
Miranda, Ca. 95553

COMMENT LETTER 32. Peter Revotskie, Miranda, Ca.

32-1 Issue: Gilham Butte.

See response to Issue 7-1.

District Manager
Ukiah District Office
Bureau of Land Management
PO Box 940
Ukiah, Calif 95482

Dear Sir

33-1 I support your decision to remove Gilham Butte from the timber base. I believe it should be left uncut. It is ~~was~~ a beautiful old growth fir forest and an important watershed. ~~This~~

Thank you
Frances Madrone
Box 484
Miranda Calif
95553

COMMENT LETTER 33. Frances Madrone, Miranda, Ca.

33-1 Issue: Gilham Butte.

See response to Issue 7-1.

Box 700
Garberville, CA. 95440
November 21, 1980

District Manager
Ukiah District Office
Bureau of Land Management
PO Box 940
Ukiah, CA 95482

Dear Sir:

This letter is in response to the Draft Timber Management Environmental Impact Statement for Sustained Yield Unit # 13. I'd like to commend the Ukiah District and the preparers of the statement for one of the most accurate and comprehensive DEIs's that I have seen. And though I find much to support and agree with, I still must take issue with some of the conclusions and choices made in the Statement.

The DEIS makes it plain in several places (3-17, 3-22, 3-32) that many of the BLM scattered blocks represent the last remaining stands of old growth forest in their respective areas. When I look at the map which accompanies the DEIS and realize that these few handfulls of green spread across such a large area are soon to be the only remaining old growth in the region save for a smattering of redwood parklands, it puts the enormity of the change which has been wrought to this land in mind bowling perspective. Given the presently known and yet to be discovered virtues of old-growth forest, its scarcity seems to first of all argue that all such land which BLM holds might have its highest use in preservation.

Of course this is not a popular argument in a region dependent upon woods products as the underpinning of its economy. And I would not have the temerity to even suggest that the best timber management would be to declare all such scattered parcels as Natural Areas if there wasn't an economic case to support the position.

Economic analysis is not one of the strong points of the DEIS. There is no discussion of the economic basis for the Proposed Action, how management and mitigation requirements were costed out, how Present Net Worth was calculated (and what externalities were included), and what discount rate was used in calculating cost/benefit ratios.

It occurs to me though, even lacking this information, that if true cost/benefit ration were done on Sustained Yield Unit# # 13, BLM would find itself in a position of sponsoring a host of deficit sales. My reasoning for this is as follows. Most of the parcels are isolated, unroaded, have legal access difficulties and are not of highest site quality. These factors contribute to high site development cost. In addition, because the EIS suggests the necessity for substantial preliminary site evaluation (Geo-

COMMENT LETTER 34

technical inventories for roading, wildlife inventories, cultural inventories etc.), extensive mitigation measures, and extensive follow-up and monitoring, the total direct costs of administering these timber sales will be quite high, making many of them marginal, even without figuring in all externalities.

(A study by Karen Foster of the University of Oregon entitled "An Economic Analysis of De-facto Wilderness Areas in Trinity National Forest," published in 1980 by the Cascade Holistic Economic Council indicates that at a discount rate of 7%--which is prescribed by the Office of Budget Management--that the most economically beneficial use of the roadless areas under consideration in every case is that they be retained in wilderness. Similar methodology applied to the scattered parcels of SYU 13 would yield interesting results.)

34-1 When weighed against the fact that the volume of timber which BLM land will produce during the ten year period of the DEIS will support only 0.1% of the regional employment, it doesn't seem that a deficit sales timber program is a warranted propping up of the economy locally. I would very much like to see strong evidence presented in the final EIS which can assure me of the economic soundness of the Timber Management Program for SYU 13. So far I have not been convinced, and therefore my first position with regard to the draft EIS is that I favor development of the non-existant alternative of no timber harvest for the unit.

Since I realize that my chosen alternative, though a sound one, is probably unrealistic because of BLM's timber commitments as mandated by various congressional acts, as a back-up position, I support the Managed Old Growth Alternative (with some modification).

The DEIS makes as strong a case for the Old Growth Management Alternative as it does for the Proposed Action, though it rather strikingly opposes the Proposed Action over it. Considering the BLM's traditional concern focused on the Pro Alternative, that the additional watersheds, wildlife and recreative advantages of the Managed Old Growth alternative, there is no real choice in my mind between the two.

I would like, however, to see the Managed Old Growth alternative expanded or modified in the following ways.

34-2 1) Because BLM does hold some of the last available old growth in the Coastal Douglas Fir region, it should increase the geographic distribution of the proposed Natural Areas and work actively towards evaluating which of its remaining old growth tracts qualify for ASEC status. The withdrawal of Gilhan Buttes from the timber base is to be commended, but it was done not only on the tracts merits, but because of intense political pressure. The district should identify other areas of similar value beyond the 18 so designated in the DSIS. As an example of additions, I would like to see the Tom Long Creek Parcel added to the proposed Natural Areas of designated as an ASEC.

2) Remove Trush Mountain and Elkhorn Ridge from the Timber Base and return them to WAA status. With acquisition of the adjoining river bottom between these two tracts the combined unit becomes a worthy wilderness area which has direct access from a major national highway, ideal for diversified recreational activities.

3) Geotechnical evaluation should be a site by site requisite before timber sales are planned. Areas of questionable stability or regenerability must be excluded.

There are a variety of detailed criticisms that I hope will be brought to the District's attention by qualified members of the public, but which are beyond my area of knowledge. I have only one final piece of input to add. Throughout the DEIS runs the assumption that these parcels are entirely isolated. This is patently untrue. More and more of the scattered blocks parcels under BLM management have resident neighbors who are heavily impacted by land use decisions. This is occuring with increasing frequency in more and more areas of the Northcoast. An outgrowth of this is the number of people engaged in small scale forestry operations for their livelihood, making use of small logging equipment and portable mills. Some attention to this class of economic input should be paid by the final EIS. In some cases, salvage and harvest methods as practiced by these alternative forest workers, might be more appropriate to the special problems of the BLM scattered blocks than traditional forestry practices.

I look forward with interest to the issuance of the final EIS on SYU 13.

Sincerely,

Douglas Fir

COMMENT LETTER 34. Douglas Fir, Garberville, Ca.

34-1 Issue: Economics.

The Federal Land Policy and Management Act of 1976 (Sec. 102(a)(7)(12)) mandates that public land use planning and management be on the basis of multiple use and sustained yield unless otherwise specified by law. The Ukiah District Bureau of Land Management contains the largest timber resource on public land in the State of California. Although on a statewide or regional comparative basis SYU 13's contribution is small, it is a significant resource that requires sound management. The actual significance would be more readily appreciated at the local mill or community level. Additionally, consideration of the contribution of the SYU 13 timber program should be placed in a perspective of cumulative contributions.

34-2 Issue: Gilham Butte.

See response to Issue 7-1.

November 22, 1980

CITIZEN'S COMMITTEE TO SAVE
OUR PUBLIC LANDS
P.O. BOX 1431
WILLITS, CA. 95490

District Manager, Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, CA 95482

The draft E.I.S. for STU 13 proposes to implement a management strategy for this land utilizing the same methods of "intensive forestry" which have brought private and industrial forest lands to the brink of disaster.

The predicted 30 year gap in cuttable trees on private and industrial forest lands, will widen to a great chasm once the full brunt of intensive forestry has been felt by the forests of Northwestern California.

This proposal is all the more poignant, when you read that even after acres of public land are the last fragments of intact, undisturbed ecosystem in watersheds devastated by "intensive forestry" and other euphemisms for the " cut now and hope we can patch it up later" strategy of modern forestry.

"Intensive forestry" is an imaginary, theoretical, scheme which has yet to be successful anywhere in Northwestern Calif. On the contrary, most intensive forestry experiments have so far been near failures, primarily because of the desire of foresters, driven by their businessmen employers, to bend the forest to fit their economic and biological misconceptions.

This near lack of understanding of the complex ecosystem that is the forest has lead to such ridiculous schemes as aerial reforestation, and the planting of eucalyptus and monterey pines on thousands of acres of California forest land. Present intensive forestry schemes are the latest brainchildren of the same institutions which brought us the above, now discredited forestry practices.

It has been known for more than 100 years that the proper mix of tree and shrub species can spell the difference between health and disease of hardwoods and conifers alike. In addition logging methods can either foster disease or encourage its spread- a concept which has already been shown to exist in the forests of Europe and Australia.

In Australia, a shrub species, eliminated by logging, was found to protect an important timber tree from a deadly fungus disease.

COMMENT LETTER 35

The growing problem of black stain root disease in young, second growth douglas fir stands in Jackson State forest, and in private industrial lands in Humboldt county, is just one of a growing list of insects and diseases to plague present "intensive forestry" experiments similar to those proposed in this E.I.S.

35-1 This is probably due, in part, to the fact that clear-cut, seed-tree, and shelterwood logging inveribly so disturbs the ecosytem that disease and pests held in check by a complex, and stable ecosytem, are released.

FLPMA does not require the logging of any of these tracts, contrary to the assertion in the E.I.S.. The mandate to manage these lands, includes no stipulation that all forest lands must be logged.

Nevertheless, since some logging seems inevitable, the only present hope for success is a carefull program of all-age, all specie forest management- espheorizing small group selection logging methods. Specie mix should mimic those in existing healthy stands.

Inventory methods for this techniques are well developed and easily and economically applied. Alt. 5 could be modified to include these ideas.

However, the vast majority of these BLM lands in watersheds that are otherwise logged over by private and industrial owners, should be carefully protected. Some management using fire, to promote reproduction could be utilized.

Such tracts could serve as seed sources and help heal the landscape while providing a place for animals of all kinds to live, while surrounding disturbed areas repair themselves. Such a designation would clearly comply with the mandate of FLPMA, and should be listed as a viable alternative.

Wouldn't it be proper if BLM did something to protect and nurture the life forces of the EARTH, while everyone else is rushing to convert all the beutiful places of the Earth into money?

This would be especially appropriate since whether these lands are logged or not would have virtually no impact on the surrounding communities- as the E.I.S. so clearly documents.

Sincerely yours,
David Orell
David Orell, Secretary, Citizens
Committee to Save Our Public Lands.

COMMENT LETTER 35. Citizens Committee to Save Our Public Lands, Willits, Ca.

35-1 Issue: FLPMA - Mandate to log.

See response to Issue 34-1.

NOV. 21, '80

DEAR B.L.M.

36-1 IN RESPONSE TO YOUR PLANNED EFFORTS TO LOG THE LAND IN THE TOM LONG VALLEY, I, A LAND OWNER IN THE AREA WOULD LIKE TO SEE THIS PROGRAM STOPPED IN THIS AREA BECAUSE IT IS THE ONLY STAND OF TREES LEFT WHICH ADD STABILITY TO THE SURROUNDING HOMESTEADS. WATERSHEDS WILL BE AFFECTED MAKING THIS AREA LESS PRODUCTIVE, IN THE LONG RUN.

SIGNED. John Jarnetin
BOX 633
GARBERVILLE CA. 95440

COMMENT LETTER 36. John Jarnetin, Garberville, Ca.

36-1 Issue: Tom Long Creek.

See response to Issue 11-1.

P.O. Box 700
Garberville, CA. 95440

Bureau of Land Management
Ukiah, Ca.

Dear BLM:

37-1 I am writing about your recent draft Environmental Impact Study which authorizes the logging of your 400 acre parcel in the Tom Long Creek watershed in Harris, Humboldt County. (T. 1 S., R. 5 E., section 18)

Any logging in this area would have grave consequences. This land is the only armored forest area in thousands of acres. It is vital to the watershed, wildlife, and community of several hundred people. The rest of the area was logged heavily, several decades ago and has still hardly recovered from the damage. Many of us who bought land here did so because the forest was here. We have for years urged you to refrained from logging it. Today we are more dependent than ever on these trees. Logging this land would represent a terrible loss to many, many people, not to mention the local ecology.

Please, therefore, preserve this parcel! Furthermore we urge you to adopt the old-growth-management alternative if you do log.

Sincerely,

Richard Wood Massi

COMMENT LETTER 37. Richard Wood Massi, Garberville, Ca.

37-1 Issue: Tom Long Creek.

See response to Issue 11-1.

Nov 23, 1980

Gentlemen

As a landowner in the Tom Long Creek area I am writing to voice my objection to any plans to log the BLM lands surrounding the Tom Long Creek watershed.

38-1

This area is rather heavily populated for such a remote area & I am hopeful that the land will remain in its present pristine condition.

This letter is in response to Draft Environmental Report regarding the use of BLM land, specifically the land described as follows:

T. 5 S., R. 5 E., Sec 18

Aside from the scenic aspect I am concerned about maintaining the quality of the watershed as it now exists.

Thank you.

Sincerely,

John H Mordaunt

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COMMENT LETTER 38. John H. Mordaunt, Garberville, Ca.

38-1 Issue: Tom Long Creek.

See response to Issue 11-1.

COMMENT LETTER 39

District Manager
Ukiah District Office
Bureau of Land Management

Nov 23, 1980

Re: DEIS for Timber Mgmt of SYU13 dated Sept, 1980

My concerns revolve around your plan to require easements for public access to scattered blocks of BLM land. Specifically, I am interested in your plan for the Schoonover Mountain area (T2N, R4-5 E. HB+M) as it appears you are proposing to acquire an unknown 10 or 12 miles of road right of way to access 17 small blocks of land. All you know, the forest lands in this area are cattle range lands, with a few sensible parcels of private timber or recreation land. One of the major sources of income to these land owners is the leasing of hunting rights. Control of the access is an important consideration in preserving the value of these hunting rights. Further, most of the range lands are unsuitable for summer range use, because of the elevation, + therefore have no commercial resale value. Control of access by locked gate is the only effective way these owners have of protecting trespass, vandalism, + theft by the public. It will from this point of reference that the following comments + questions evolve.

39-1 1. BLM has no access to these lands; Section 203 of PL. 94-579 allows sale of unmanageable lands, so why isn't such proposed in your DEIS?

39-2 2. What is the expected R/w acquisition cost, road building cost, + circumstance cost for the section of road described above?

3. What is the total development cost compared to the expected value of the timber yield? (At the Schoonover area)

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4. What are the public benefits that require permanent public access to these timbered parcels in the Schoonover Mountains area? The private land owners in this area have all been able to manage these timber lands with only timber harvest temporary easements, as has BLM in the past. Your DEIS makes no good case for exercising the immense power of Eminent Domain for these types of Rwy.

39-3

5. While much big service is given in the DEIS about the problems public access yields on private ownership, you have made no specific effort to quantify or evaluate the specific effects. These are serious - economic impact and deserve every bit as much attention and coverage as do the effects on wildlife, etc.

39-4

6. How is your study related to the current study by Six Rivers National Forest for their forest land and Resource Mgmt Planning. They also have land west of Mad River that should be, or could be serviced by your road system in T2N, R5E, N6+HB, + your study should be coordinated.

39-5

7. Your land ownership is misrepresented in T3N, R4E, N6HB according to my maps. Please review your holdings, + correct the acheivt maps.

39-6

8. Please include in the document (EIS) a copy of a typical BLM permanent easement across private land, and explain how these easements are appraised, ie. how are the easement valued across encumbered lands, and across undeveloped woods roads;

39-7

(6)

COMMENT LETTER 39

(3)

8 (cont.) how are the rights of existing easement owners along these roads dealt with; what method is used to evaluate + compensate for the problems of trespass, fire danger, littering, loss of hunting rights value, vandalism, increased cost of management to patrol, etc; are your easements fenced; are cattle guards installed + maintained?

39-8 9. What is your guarantee of road maintenance, i.e.; how much, how often, to what standards? This is in respect to your use of existing roads which it appears you plan to take over through private lands.

In closing, I wish to add that I support harvest of the timber on BLM lands; however, I feel you can do so and still be a good neighbor. I suggest you follow the following course of action:

1. Evaluate your scattered holdings, & dispose of those that are too small & remote for efficient management by sale or exchange; I.e. hand grenade, outlying 40's.
2. For those that are to be retained, restrict your access to the smallest parcels & time of harvest + regulatory easements.
3. Where permanent access is required for the larger remote blocks, acquire permanent management easements using public access; shared maintenance.
4. For the largest blocks that are capable of management for multiple use, acquire permanent easements for public access + take suitable steps to protect the private owners along the ROW.

(4)

I appreciate having this opportunity to comment on your DEIS, and look forward to seeing the final document.

Gerald F. Spellenberg
874 Bunting Ct.
Orangevale, Ca. 95662

COMMENT LETTER 39. Gerald L. Spellenberg, Orangevale, Ca.

39-1 Issue: Sale of unmanageable lands.

The analysis of SYU 13's timber management program is program specific. Although it reflects the ongoing land-use planning process, it is not a land-use decision vehicle. As elaborated on Page 2-4, this environmental impact statement is a tool in the decision-making process. Consequently, proposals for land-use allocation are beyond the scope of this statement.

39-2 Issue: Road costs.

Page 2-8 specifically mentions that for analysis purposes, a 10-year timber management plan model was prepared for SYU 13. As the term model implies, specifics are not firm at this time. Ultimate costs, route selection, and the model sale itself are subject to change.

39-3 Issue: Permanent public access-public benefits.

Specific benefits to the public would be reflected by bringing an area of highly productive forest land under a sound forest management program. The direction of the Federal Land Policy and Management Act calls for management of the public lands and their resources under the principles of multiple use and sustained yield in accordance with developed land-use plans. Developed land-use plans for the Scattered Blocks Planning Unit, as mentioned on Page 2-4, are not complete.

39-4 Issue: Access - Mitigation for private landowners.

Site-specific environmental impacts and mitigations for access are addressed in an easement justification and environmental assessment written prior to road survey and access acquisition. Socioeconomic impacts and landowner concerns are considered in the easement justification, which affects route selection. The impacts and concerns are also considered when the Bureau negotiates with the landowner.

RESPONSE LETTER 39

39-5 Issue: Coordinsted planning, Six Rivers National Forest.

Six Rivers National Forest was contacted regarding the proposed access acquisition, and while nothing specific has yet been proposed by the Forest Service in that area, they could use the road for their own purposes.

39-6 Issue: Land ownership.

Due to the small scale of the map, one small portion has been inadvertently omitted.

39-7 Issue: Easement acquisition procedures.

Specific procedures regarding access acquisition are found in BLM Manual 2130, and appraisals are done in accordance with the Uniform Appraisal Standards for Federal Land Acquisition. It is not the intent of an environmental impact statement to detail such procedures. Right-of-way fences and cattleguards may be installed as part of the easement acquisition agreement. Damages are paid to compensate the landowner for such things as livestock loss and potential vandalism.

39-8 Issue: Road maintenance.

Guidelines for Bureau actions are provided through an elaborate manual system as well as Federal regulations and directions. Standards for roads are found in BLM Manual 9113.

JAN 2[illegible]
Fairfax, CA

District Manager,
Bureau of Land Management
Ukiah, CA.

Dear Sir,

In response to the draft EIS. on BLM's ten-year plan:

1) Go for the minimal-cut option of Old Growth Management. Throughout the entire draft, this is the option identified regularly as least harmful to the various forest environments; by your own data it would mean but fractionally less income to local industry, and all of that short run. In the end, we will be thankful that we saved the last of these climax woods hereabouts.

2.) Specifically, I plead with you to spare the last piece of virgin douglas fir in (of course) my neighborhood. (See enclosed old letter) It is surrounded by my Ten Long Cent community, more people living immediately adjacent to it than any single small BLM parcel in this entire District - please correct me if I'm wrong. We have an inch-

COMMENT LETTER 40

-thick, eleven-year-old file of letters exchanged with BLM on this specific parcel; if it is ignored, the very integrity of this community will suffer. Please save it as a park for our grandkids. They'll need it.

Thanks for the attention,

Jared Rosman
Box 200
Graeagle, CA.

96020

COMMENT LETTER 40

May 3, 1976
Harris, Calif.

District Manager
Bureau of Land Management
555 Leslie St,
Ukiah, Calif.

Dear Sir,

I am writing concerning a parcel of BLM land to which I am an adjacent landowner and resident in Harris. This piece, which is in Section 18 of T5S, R5W, lies across the Tom Long Creek, a major tributary of the East Branch, South Fork of the Eel. It contains the only stretch of virgin creekbed left along the Tom Long in the Harris Valley, and is a bare 100 yards upstream from the community swimming hole, used by nearly 80 year-round valley residents.

At issue is the large adjoining parcel (480 acres) which is owned by Masonite immediately upstream from the BLM piece. Masonite is negotiating to sell to Willison Timber Co. of Fort Seward, who want to log it this summer.

This is extremely steep hillside on both sides of the creek; there are slides and logjams from the previous logging (some of which, in the early 1960s, trespassed and cut on BLM property illegally). The watershed is just beginning to recover: trout may be seen again, and the siltage and erosion off the slopes is easing. It would be a tragedy of mismanagement if new logging on the Masonite Parcel upstream trashed the unravelled BLM creekbed of the Tom Long, and undercut the banks once again downstream.

Is there any way we neighboring homeowners, working through the service of BLM, could influence Masonite either to not cut along the creek (ala S, or sell instead to BLM to add to the adjoining parcel, or to the valley residents to preserve?

Feelings in the valley on this parcel have run high for a long time, since 1969 when the potential Point Reyes exchange was being discussed, and 1972-3 when Masonite was unable to hire a local logger in the face of community pressure.

Please help us save this one last stretch of undamaged creekbed. Any help would be greatly appreciated. Thank you.

Jared Y. Rossman
Box 728
Garberville, Ca. (95440)

COMMENT LETTER 41

CALIFORNIA - PACIFIC
RESEARCH ASSOCIATES

RANDY F. HERBERT, M.A.T.
ALAN M. PATERSON, Ph.D.
STEPHEN R. WEE, M.A.

P.O. BOX 943
DAVIS, CA 95616

November 20, 1980

District Manager,
Bureau of Land Management,
Ukiah District Office,
P.O. Box 940,
Ukiah, California 95842

Dear Sir,

As the consultants responsible for the preparation of the Class I overview of historical resources in Sustained Yield Unit 13, we wish to comment on the Draft Environmental Impact Statement on Timber Management issued in September 1980.

We are particularly concerned, as professional historians, with the treatment of cultural resources in the Draft EIS. In general, we endorse the systematic efforts of the Ukiah District Office to define and evaluate the cultural and sociocultural resources of SYU 13. The discussion of those resources and the impact the proposed Timber Management Plan will have on them indicates a clear recognition of their value and of their fragility.

Despite the Bureau's general commitment to the protection, so far as possible, of the cultural resource base, we are disturbed by the following statement found on page 3-39 of the Draft EIS, under the heading "Historic Site Frequency and Distribution."

> In northwestern California, the historic past is manifested in old buildings and structures that are standing to this day. It also lies buried in the ground in an archaeological context. Archeologists are becoming increasingly interested in the excavation of such sites. The historic past for this portion of the State is not well documented. Knowledge of the day-to-day activities of the early settlers awaits future archaeological investigation.

The historic past is a great deal more than certain 'old' physical structures or remnants. It is a constantly evolving heritage with social, economic, environmental and political dimensions. It is manifested in, among other things, the progression of land uses, community development, the evolution of the transportation system and the changing composition and character of the population. Since the historic past is much richer and more subtle than mere physical sites and artifacts, its exploration and interpretation will demand much more than just "future archaeological investigation."

The unfortunately narrow definition of the historic past and the emphasis given to archeology in the interpretation of that past

leaves the role of historians in doubt. We believe that the Final Environmental Impact Statement should resolve this uncertainty by making clear that qualified historians will be involved in any interpretation of the historic past. To do less would seriously compromise the Bureau's efforts to identify and preserve the rich cultural heritage of the region.

41-1

We believe that in the preparation of the Timber Management Plan for SYU 13 the Ukiah District has shown an underlying sensitivity to the importance of cultural resources. In our opinion, the continued involvement of historians in the evaluation of the historic past, and a recognition of the past as complex and constantly evolving, will contribute to the success of the Bureau's cultural resource program.

Sincerely,

Alan M. Paterson

Alan M. Paterson

Rand F. Herbert

Rand F. Herbert

Stephen R. Wee

Stephen R. Wee

COMMENT LETTER 41. California-Pacific Research Associates, Davis, Ca.

41-1 Issue: Historic past.

Representatives of the Standards Committee of the Society of Professional Archaeologists, in consultation with members of the Society of Historic Archaeology, are presently preparing draft guidelines for historic archaeological research and preservation. Hopefully, this action will identify the minimal qualifications for individuals approved to evaluate historic values. Qualified historic archaeologists must have appropriate expertise in historic research and archaeological method and theory. The Bureau of Land Management recognizes the multicomponent aspects of cultural resource management, including that of history in all of its dimensions. There are presently no historians on the cultural resource management staff of the BLM in California. Historic resources will be accommodated through approved cultural resource management memoranda of agreement. It is important to recognize that the budget process affects all Bureau programs. The Bureau will ensure that significant historic resources are seriously considered in the management decisionmaking process.

NOV 24, 1980

Dear Sir:

This is concerning the Draft Timber Management Environmental Impact Statement for the 10 year timber management plan of Sustained Yield Unit 13 - specifically the two parcels including Gilham Butte in Southern Humboldt County. I was very pleased to see that this area has been excluded from the timber production base as this is one of the few remaining areas in Humboldt County with vigorous stands of mature old growth trees on public land. This is an important asset to all of us in Northern California because it contains sources

42-1

COMMENT LETTER 42

of mature seed and provides an untouched area for wildlife species which are otherwise affected by timber production. Also, living in the watershed downstream from Gilham Butte, I am very much opposed to any logging on the Butte because of the negative effects on the water quality & local geology, which effects have already been shown to have a negative impact on fisheries downstream.

With only a few remaining stands of mature old growth Douglas Fir in northern California on BLM land, I believe that it is in the best interests

of all citizens that this area in particular and any other similiar areas be looked at more with a long range plan instead of the instant, but not necessarily long lasting, benefit of dollars. I sincerely hope that as a public agency you will protect our [redacted] country's interests and not bend to the pressures of big money interests.

Thank you very much for your responsiveness to this issue thus far. Hopefully it will help us all.

Sincerely,
Dan Gribi

COMMENT LETTER 42. Dan Gribi, Phillipsville, Ca.

42-1 Issue: Gilham Butte.

See response to Issue 7-1.

Louisiana-Pacific Corporation

P.O. Box 170
Ukiah, California 95482
707/468-9131

November 25, 1980

District Manager
Ukiah District Office
Bureau of Land Management
P. O. Box 940
Ukiah, California 95482

Re: Sustained Yield Unit 13 Timber Management Draft EIS

Dear Sir:

After an initial look at your draft EIS we offer the following comments:

43-1 1. The critical issues as identified are misleading, incomplete, and are prioritized incorrectly. Are these issues and their priority simply a public input numbers game from the scoping sessions, or do these issues represent the conclusions of BLM's professional land management staff members?

2. Comments received from the Timber Industry are incompletely summarized and, therefore, do not reflect all the information provided in scoping sessions.

3. It is disturbing to read that BLM feels SYU 13 would not provide enough timber to affect sawmill operations or employment.

43-2 No matter what figures you come up with or their validity, the impact of your timber management is important. In today's age of land use restrictions and lockup, every wise use of our natural resources is important when one considers the total needs of our north coast communities and the nation. To say our percentage is small and, therefore, doesn't really matter is a cop-out and non-professional.

We plan to offer more detailed comments in the future and hope your final EIS will be more reflective of the true issues and values associated therewith.

Sincerely,

Pete Barnard
Asst. Resource Manager

PB:wd

COMMENT LETTER 43. Louisiana Pacific, Ukiah, Ca.

43-1 Issue: Critical issues.

The critical issues and their priorities were identified using input from the BLM's professional staff and the professional staffs of other public agencies, industry, unions, environmental groups, and individuals. Each of these groups prioritized the key issues, which were analyzed in such a way to avoid bias because of differences among the groups.

The results correlate closely with concerns expressed during many previous land-use planning exercises and other public contacts.

All correspondence and minutes of the scoping sessions are on file for public review.

43-2 Issue: Importance of SYU 13 timber management program.

A determination of actual importance of the timber management program is beyond the scope of this environmental impact statement. Although the Federal Land Policy and Management Act of 1976 mandates the management of public lands on the basis of multiple use and sustained yield, the management of the resources must be in complete agreement with developed land-use plans. Analysis from a regional perspective of SYU 13's timber program indicates that total contribution is small; however, this does not indicate the importance of the resource. (See response to Issue 34-1.)

COMMENT LETTER 44

Dear B-M,

11/24/80

I am a resident of the Tom Long Creek valley in southeastern Humboldt Co. There is a 40 acre parcel of BLM land in this valley and it is the only remaining old growth on the Tom Long C.C.R. watershed. The only part of the creek that is still holding together is that which is bounded by BLM lands. The BLM land is surrounded by 40 and 80 acre homesteads and many people I want there to be some unlogged land in the community - for the health of the watershed as much as the soul. The BLM Draft Environmental Impact Statement indicated that the parcel located in Section 18 T. 5 S R. 5 E. will be open to logging in the near future. Please do not let this happen. The health of the land must be considered equally if not more than timber needs. It is preposterous to try to supply the world's lumber needs from the Pacific Northwest.

Sincerely.

J. Ehrlich
Box 700
Garberville, Ca

87

COMMENT LETTER 45

Mendocino County Resource Conservation District

405 ORCHARD AVENUE UKIAH, CALIFORNIA 95482 PHONE (707) 468-9223

December 4, 1980

District Manager, Ukiah District
Bureau of Land Management
555 Leslie Street
Ukiah, CA 95482

Dear Sir:

RE: Draft Environmental Impact Statement - Sustain Yield Unit 13

The attached comments were forwarded to the District from the Soil Conservation Service.

Please review them as constructive comments to the Draft Environmental Impact Statement.

Sincerely,

Richard E. Jacobsen

Richard E. Jacobsen
Chairman, Board of Directors

REJ:rc

CONSERVATION DEVELOPMENT SELF GOVERNMENT

45-1 | 1 Are they implying soil is bare after timber harvest? Our data doesn't show that.

45-2 | 2. For how long? This will vary with moisture regime.

45-3 | 3 The whole road bank is not eroding. On steep slopes, the majority of the road bank surface is exposed rock which does not erode.

45-4 | 4. Few if any in this area are sandy.

45-5 | 5 Are "robust" and "extremely fragile" defined technical terms?

6 The SCS is currently mapping approximately 42 different forest soils in Mendocino County.

7 Field work in Western Mendocino County will be finished in late 1983. Field work for Eastern Mendocino County will be finished in ~~by~~ 1985.

45-6 | 8 Figures on Table 3-8 seem to be off compared to "Mendocino County Resource Conservation District Long Range Development Program". Please contact Brian Furman, SCS Field Office, Ukiah, for correct figures.

9 Or the soil particle may be stabilized by vegetation and may never reach the stream.

45-7 | 10 How did you determine these erosion figures?

45-8 | 11 78% of erosion will come from the harvest area? The first line under Road Construction and Maintenance (pg 4-2) seems to contradict this.

12 Depends on logging system used.

45-9 | 13 Surface soil temperature.

14 Soil surface temperatures, soil temperature is measured at 50cm, below the depth of daily flux.

COMMENT LETTER 45

15 Depends on type of yarding and slope.

45-10 | 16 Questionable figures.

17 Depends on site prep. used.

45-11 | 18 For entire rotation?

45-12 | 19 Any vegetation over 25' does not effect raindrop impact. A raindrop with the highest kinetic energy reaches terminal velocity at 25 feet. That is, the height of vegetation over 25 feet does not afford greater surface protection.

45-13 | 20 See revised General Soils Map and attachment for soils and General Soils Map of Eastern Mendocino County please contact Roy Bowman, SCS, Ukiah Soil Survey Office, Ukiah.

PAGE 3-3:

In the natural undisturbed forest, bare soil is relatively rare, especially
(1) under the humid coastal climate. However, once soil is bare, it tends to
erode and has a high to very high erosion hazard. Vegetation establishment is
(2) discouraged and much of the soil remains bare and susceptible to further
(3) erosion. Actively eroding areas, such as road banks, landslide scarps, and
gullies, tend to remain bare.

PAGE 3-4:

Since forest soils are steep, gravity is an important source of erosional
(4) energy. Sandy soil under dry conditions can move downhill under the force of
gravity alone. When the soils are saturated, soil creep may occur, culminating
in landslides. Because soils are commonly uneven, flowing water is quickly
channeled into rills and gullies. As a result, eroded material includes a
large proportion of the less fertile subsoils and parent materials (Rice 1979a).

(5) Forested sites within SYU 13 range from robust to extremely fragile and
from areas of rapid recovery to those slow to recover (Rice 1979a). The
timber production capability classification (TPCC) inventory eliminated major
soil areas from the productive timber base that are marginal for timber
production and slow to recover. These included serpentine soils, shallow
soils, and known unstable soil areas. The remaining soils are productive,
fertile, and capable of sustained timber yield and are considered in this
environmental impact statement.

Map 3-1 is a general soils map of SYU 13. The information for Mendocino
County is from an intensive soil survey currently being done by the Soil
Conservation Service (SCS). Because the same information is not available for
Humboldt County, there are dissimilarities on the map between the two counties.
(6) The SCS is currently mapping 23 different forest soils in Mendocino County
(7) with the possibility of finding additional soils as mapping progresses. The
SCS will complete the soil surveys for Mendocino County in 1980 and Trinity
County in 1981.

PAGE 4-2:

Soil particles detached during a hillside mass movement or other erosion
process may or may not be transported immediately to a stream or ocean. Most
often they are moved only part way down the hill, where they are deposited.
(9) They may be picked up by a subsequent storm and moved further. This sequence
may be repeated a few or many times before the particle reaches a stream and
becomes sediment (Dodge et al. 1976). A study of Casper Creek Watershed (Rice
et al. 1979) indicated that about 22 percent of the eroded material had left
the watershed.

COMMENT LETTER 45

PAGE 4-3:

An estimated 57 miles of new road construction and 94 miles of reconstruction would be necessary under the proposed action. Approximately half of the construction and reconstruction would be on ridgetops. The remainder would be mostly on midslopes, with only minor amounts of lower slope or valley road disturbance. The erosion rate for the undisturbed or natural lands in SYU 13
(10) is approximately 1 ton per acre per year. Road construction would increase this to from 5 to 49 tons per acre per year on the disturbed areas. Construction of the proposed logging roads would increase erosion on the road right-of-way to as much as 465 tons per mile (Table 4-1) (Rice 1979b). Approximately
(11) 22 percent of the total erosion would come from the road network, while the rest would come from the harvest area.

SHELTERWOOD CUTTING

Compared to clearcutting, the two-stage shelterwood silvicultural system, which leaves an overstory of between 30 and 50 percent canopy cover, would
(12) have a beneficial impact on soil moisture and temperature. Compared to no disturbance, there would be adverse impacts. Available research literature indicates soil moisture is the most limiting factor in the survival and growth rate of seedlings on most soils (Hallin 1967). Loss of soil moisture is through evapotranspiration by plants and direct evaporation from the soil surface. Factors involved in the rate of evaporation are influenced by soil surface temperature, solar radiation, humidity, and wind. Studies also indicate soil moisture is consistently higher in clearcut units than in partial cut or uncut control units. Although moisture in the entire soil profile is adequate for established fir, under clearcut conditions the soil moisture in the surface 8 inches (the planting depth of 2-year old bare root stock that has not been transplanted) may be less than necessary for seedling survival.

Other studies on soil temperatures found that deerbrush 2 feet high and
(13) 2 feet across reduced soil temperatures by at least 50°F. Depending on the
(14) influence of elevation, slope, aspect, shade, and time of day, soil temperatures may reach or exceed 180°F. Lethal temperatures to emergent seedlings varied

PAGE 4-5:

Present erosion rates on these undisturbed lands are .6 to 1.2 tons per
(15) acre per year (Table 4-2). Yarding would increase erosion rates to from 3.0 to 8.0 tons per acre per year.

PAGE 4-6:

TABLE 4-2
ESTIMATED AVERAGE TONS PER ACRE OF EROSION
UNLOGGED AND LOGGED AREAS

(16)

	SLOPE		
	35%	35-70%	70%
Unlogged	.6	1.0	1.2
Logged			
Cable	3.0	4.0	4.8
Tractor	8.0	--	--

PLANTING

(17) The planting of poorly stocked or nonstocked logged areas, site conversion areas, and timber stand improvement (TSI) areas would reduce long-term erosion and sediment. An increase in ground cover (living or dead plant materials) would reduce raindrop impact erosion, overland water flow, and dry raveling (Dodge et al. 1976).

PAGE 4-7:

TABLE 4-3
TOTAL TONS OF EROSION BY SLOPE CLASS AND YARDING SYSTEM
(Based on 4 years for sites to return to prelogging erosion)

(18)

	SLOPE		
	35%	35-70%	70%
Cable	--	19,215	8,310
Tractor	24,405	--	--

PAGE 4-37:

(19) Compared to the other alternatives and the proposal, the managed old-growth alternative would cause the least erosion. By leaving nature trees, snags, down logs, and slash in place in yarding areas, the forest floor would be protected from raindrop impact and overland flow. The old-growth alternative would result in about a 15 percent decrease in erosion rates.

COMMENT LETTER 45. USDA, Soil Conservation Service, Ukiah, Ca.

45-1 Issue: Ground cover.

Timber harvest and road construction will leave areas of bare soil (uncovered by litter or vegetation). The percent of bare soil will vary. Hauge et al. (1979) refers to 19 percent bare ground, and a district study (USDI, BLM 1979b) shows up to 25 percent bare ground left as a result of timber management activities. However, the proposed shelterwood harvest system would leave much less bare ground.

45-2 Issue: Revegetation.

Actual revegetation time will vary and depend on the moisture and temperature regime. Some road banks have been bare for many years.

45-3 Issue: Erosion - road banks.

The amount of exposed rock will vary, depending on the height of the road cut and soil material.

45-4 Issue: Sandy soil.

Although there are few sandy soils, the statement is still correct.

45-5 Terminology clarification.

In accordance with specific direction from 40 CFR 1500.4(d), the intent is to promote via the NEPA process an understanding of adverse and beneficial impacts of a proposal. The terms "robust" and "extremely fragile," while not technical, promote understanding.

45-6 Issue: Table 3-8, Nonforest Lands.

The figures presented in Table 3-8 represent the best available information at the time the draft analysis was prepared. It is recognized that land-use allocation is not a static process and that the acreages listed continually change. However, to allow analysis of potential impacts on a meaningful basis, the data base for the analysis was necessarily limited to a given point in time. Any further planning efforts will reflect the most current information available.

45-7 Issue: Erosion.

The erosion estimates are based on research plot data (Dodge et al. 1976, Hauge 1977, Rice 1979a and 1979b, USDA 1970 and 1972, and others). In addition, there were personal communications with personnel from the U.S. Forest Service and Soil Conservation Service.

45-8 Issue: Erosion.

The first line under Road Construction and Maintenance (Page 4-2) is a general statement about road construction in Northern California. Many roads were constructed years ago without considering the magnitude and significance of erosion. With mitigation, such as geotechnical investigation and application of conventional engineering measures, impacts from road construction can be reduced. Thus, a higher percent of erosion will come from the harvest area. However, with 22 percent of the erosion coming from about 5 percent of the area disturbed by timber harvest, road construction is a major source of erosion.

45-9 Issue: Soil temperature.

Yes, "reduced soil temperatures" refers to surface soil temperature.

45-10 Issue: Erosion.

See response to Issue 45-7.

45-11 Issue: Erosion.

The erosion in Table 4-3 is only for the 10-year period of the Timber Management Plan.

45-12 Issue: Erosion.

Although the mature trees are over 25 feet in height, they will provide some protection from raindrop impact because of foilage interception and stem flow.

45-13 Issue: Soils.

The General Soils Map (Map 3-1) was prepared using the best available information. The Bureau recognizes that as the detailed soil mapping of the county gets closer to completion, the preliminary map will change.

JEANNIE MALATO
P.O. Box 35
Phillipsville, California 95559

November 19, 1990

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, California 95482

Dear Sir:

46-1 I overwhelmingly support your decision to remove Gilham Butte from the timber production base, as outlined in your Draft Timber Management Environmental Impact Statement for SYU 13. I would urge that this decision be finalized.

The discussion of the environmental impacts of logging in this document is basically excellent, and Dean Stepanek and his staff are to be highly commended for a thorough and farsighted study, sensitive to the earth and its inhabitants.

However, I believe the Managed Old-Growth Alternative should be adopted for SYU 13 instead of the Proposed Action; the Managed Old-Growth Alternative would cause 15% less erosion, add the least amount of sediment to our north coast streams, produce more water, and would provide the most benefits to wildlife. The benefits gained far outweigh the initial increased timber gained in the Proposed Action.

Because of the rarity of old growth Douglas fir ecosystems in the United States, your decision to preserve Gilham Butte as an old growth reserve is crucial, and I would urge the establishment of the other 18 scattered parcels as old growth reserves.

Again, as a neighbor of Gilham Butte, I am heartened that the BLM carefully listened when we asked for positive management alternatives. Thank you.

Sincerely,

Jeannie Malato

COMMENT LETTER 46. Jeannie Malato, Phillipsville, Ca.

46-1 Issue: Gilham Butte.

See response to Issue 7-1.

P.O. Box 404
Garberville, Ca. 95440
November 23, 1980

District Manager
Ukiah District Office
Bureau of Land Management
P.O. Box 940
Ukiah, California 95482

Dear Sirs;

I am writeing to you to express my support for your Draft Timber Management Environmental Impact Statement for a 10 year timber management plan of sustained yeild Unit 13 -- 48,682 acres in Humbolt Mendocino, Trinity, and Sonoma counties.

From what I have seen this is a most impressive and comprehensive document. The proposed exclusion of Gilham Butte from the timber production base, has relieved many of my fears for what could have been a potential ecological disaster, resulting from over-harvesting and mudslides. There is a fragile ecological balance on this particular Butte as it contains an old-growth Douglas Fir Forest, and also because it is a habitat of certain wildlife species associated with old-growth Douglas Fir forests. Also I believe that had intensive logging practices occured on Gilham Butte there would be severe watershed destruction.

On Gilham Bitte it has been noted that there exceedingly beautiful flora and fauna, and also unusual wildlife species, such as the wild Bore that have been seen there recently, many Deer, Beaver, Racoon, hawks, Eagles, Mountain Lion, Bobcat, and various other species.

I wanted to say again that I overwhelmingly support your Draft Timber Management Environmental Impact Statement for said 48,682 acres and hope to see continued effort toward positive management alternatives while still haveing sustained Yeild.

Thank you for your time and consideration.

Yours Truly,

Nancy Baker

COMMENT LETTER 48

United States Department of the Interior
NATIONAL PARK SERVICE
REDWOOD NATIONAL PARK
DRAWER N — 1111 SECOND STREET
CRESCENT CITY, CALIFORNIA 95531

IN REPLY REFER TO:

L7619

December 3, 1980

Dean Stepanek
District Manager
Bureau of Land Management, Ukiah District Office
P. O. Box 940, 555 Leslie Street
Ukiah, California 95482

Dear Mr. Stepanek:

We recently received the Draft Timber Management Environmental Impact Statement for Sustained Yield Unit 13, located in northwestern California. Our comments on this draft EIS may be divided into two distinct categories: (1) proposed land management activities within the Redwood Creek basin upstream from Redwood National Park and (2) specific timber harvesting and road construction specifications outlined as mitigations and timber management parameters to be utilized during silvicultural and related operations on Sustained Yield Unit 13.

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The Congress, in establishing Redwood National Park in 1968, had not anticipated the magnitude of adverse impacts that ultimately occurred as a result of continued logging in watersheds upstream from park lands. To rectify this oversight, P.L. 95-250, enacted in March 1978, enlarged the park by some 48,000 acres, and provided for a 30,000 acre Park Protection Zone. Within this protection zone our staff continues to carefully review possible impacts of continued timber harvesting and road building upon the downstream aquatic and riparian resources of Redwood National Park. In addition, U. S. Geological studies and National Park Service research are being conducted to delineate major basin-wide sources of sediment and to identify those land use practices and natural processes which continue to result in degradation of downstream park resources. As you are aware, P.L. 95-250 and its associated legislative history places great emphasis on the protection of existing park resources from the adverse consequences of timbering on adjacent lands within the Redwood Creek watershed.

From the moment of the park's creation in 1968, timber harvesting and road construction disturbances, combined with natural processes, posed imminent threats of substantial damage to valued park resources. Recent interactions between inherently unstable, highly erodible hillslopes, exceptionally severe storms, and major landscape changes brought about through intensified land use practices have caused Redwood Creek and many of its major tributaries to transport far more sediment than natural. Logging practices

Year of the Visitor

themselves have greatly accelerated the erosional process. For example, studies undertaken by the U. S. Geological Survey have shown that logging, road construction and timber harvest practices have increased the suspended sediment load by a factor of 17 in drainage basins that were heavily logged, as compared to unlogged areas.

Professional studies currently being conducted by National Park Service geologists and hydrologists have revealed that the major tributaries to Redwood Creek, located within the 30,000 acre park protection zone immediately upstream from Redwood National Park, contain the most erosive and unstable slopes and stream channels within the basin. Hillslope erosion and major streamside landsliding within the Lacks Creek watershed, as well as other tributaries, are directly associated with road construction practices and land use activities which have been conducted in these areas. Similar studies have revealed systematic long term changes occurring throughout the Redwood Creek watershed as a direct result of those land use practices. Landsliding, filling and widening of stream beds, erosion of stream banks, damage to streamside vegetation, and overall degradation of natural aquatic ecosystems have been documented. Primarily as a consequence of their location, National Park lands situated at the bottom of the Redwood Creek watershed, have been exposed to the continuing impacts of timber harvest in the upstream, 240 square miles of the Redwood Creek basin which remains open to logging.

As mandated by Congress, and to reduce their potential adverse erosional impacts on downstream resources, the National Park Service currently reviews and inspects proposed timber harvest operations on private lands within the Redwood Creek basin. These field reviews generally result in significant modification of land use proposals and/or the deletion of proposed activities on certain critical areas where the proposed operations could result in the rapid acceleration of erosional processes. Public Law 95-250 further authorizes the Secretary of the Interior to acquire lands and interest in lands, upon a finding that failure to acquire all, or a portion of such lands, could result in physical damage to park resources.

In keeping with Congressional concern over continued intensive land use practices within the Redwood Creek basin and their potential impact on the resources of Redwood National Park, P.L. 95-250 directs the Secretary of the Interior, or the Secretary of Agriculture, where appropriate, to manage additional federal lands within the hydrographic basin of Redwood Creek in a manner which will minimize sedimentation which could affect the park. Federal lands are to be managed, according to P.L. 95-250, Section 101(a)(6), in coordination with plans for sediment management within the basin (such overall basin-wide sediment management plans will be a direct outcome of research now being done on private and public lands upstream from the park). Finally, as a part of the same subsection, Congress directed the Secretary to initiate and implement a program for the rehabilitation of areas within and upstream from the park contributing significant sedimentation because of past logging disturbances and road conditions.

Watershed rehabilitation and erosion control projects within the 48,000 acre

addition to Redwood National Park have been underway for three years. Several thousand acres have been intensively treated to control accelerated erosion problems. It is expected that within the next several years rehabilitation efforts will be directed towards private lands within the Park Protection Zone and in upstream areas where such work may significantly reduce accelerated erosion rates which have resulted from past land use practices. In conjunction with this effort continuing studies by the U.S. Geological Survey and National Park Service scientists are being conducted on these private lands which will help direct the location and intensity of future rehabilitation activities. The identification of areas prone to mass movement and other accelerated erosional processes will enable our staff to better deal with proposed land use practices on private lands which could adversely impact the downstream resources of the park.

In light of Congressional concerns, Mr. L. Lee Purkerson of my staff contacted the Ukiah District Office of the Bureau of Land Management regarding proposed timber sales within the Redwood Creek basin in March 1980. During these discussions with Mr. Tom Schott, BLM Forester, and Mr. Edwin G. Katias, Assistant District Manager, we requested a ten year deferral of timber harvesting and road construction on public lands managed by the BLM and located within the Redwood Creek basin. Specifically, these consisted of areas within the Lacks Creek drainage (Hoopa Mountain Sale Unit) and in upstream areas (Board Camp Sale Unit). This deferral would delay any potential erosional impacts of proposed timber sale activities while allowing the U.S. Geological Survey and the National Park Service to better evaluate the potential impact of proposed timber harvesting and road construction in these highly erosive areas.

Correspondence dated March 21, 1980 from your Mr. Edwin G. Katias of your office, indicated concurrence and agreement with the proposed ten year deferral from timber harvesting and road construction on BLM lands within the Redwood Creek basin. We believe the final Environmental Impact Statement for Timber Management within Sustained Yield Unit 13 should formally address this agreement. By the early 1990's both the National Park Service and the Bureau of Land Management will be better able to evaluate the potential benefits and adverse impacts associated with timber sales on public lands upstream from Redwood National Park. In addition to the potential impacts of the proposed land use activities, major climatic events which could occur during the coming decade will also influence the advisability of pursuing active land management in this area.

48-1

In addition to our concern for lands within the Redwood Creek watershed, listed below are our comments regarding specific aspects of the Draft Environmental Impact Statement for Sustained Yield Unit 13:

48-2

1. Map 2-2, contained in the leaf at the end of the report, shows the northeastern boundary of Redwood National Park as falling well within the Klamath River drainage basin. This boundary is incorrectly shown and instead fullows much more closely the Bald Hills Road shown immediately to the southwest.

48-3

2. Discussions on page 2-12 indicate that spur roads are to be physically blocked to prevent unauthorized use following timber harvesting. We have found that blockage of such roads, especially if they contain permanent drainage structures (culverts), can lead to accelerated erosion due to a lack of road maintenance following winter storm periods. The draft EIS indicates that such spurs will not be maintained until the next stand entry. Rehabilitation work within Redwood National Park has shown that the removal of such drainage structures upon the completion of timber operations can prevent major erosional problems from developing between harvest rotations. Such culvert removal consists of the complete excavation of road fill from ephemeral, intermittent and perennial stream channels which have been crossed by temporary roads. In addition, we recommend to private landowners within the Redwood Creek basin that temporary bridges such as flatcars or log stringer bridges be utilized in place of culverts and inorganic fill where such a structure is physically feasible. When the second rotation period comes around, drainage structures may then be reinstalled along the road alignment while the road between such structures will have remained virtually intact during the intervening period.

48-4

3. With respect to the design of drainage structures during road construction, the proposed timber management parameters beginning on page 2-12 of the EIS do not address what magnitude and return period rainfall rate culvert structures will be designed to accommodate. Also in accordance with these concerns, we believe that in many cases sound land management must consider the beneficial environmental considerations associated with the installation of permanent and temporary bridges as opposed to culverted, filled crossings. Forest practice regulations in the State of California specify culvert sizing to accommodate 25 year runoff events. In areas of especially heavy rainfall, such as exist along many northern California mountains, we believe drainage structures should be designed to accommodate at least the 50 year return period storm. Bridges, where practical to install, will typically withstand at least 100 year return period runoff events and require far less maintenance than conventional culverted stream crossing facilities. Since BLM public landholdings are so dispersed, timely winter maintenance would be logistically impossible and extremely labor-intensive (i.e.,expensive). The use of permanent log stringer or flatcar bridges essentially eliminates the need for frequent maintenance inspections and thereby significantly reduces long-term costs.

48-5

4. From our experience in the Redwood Creek basin, we have found that trash racks constructed at the inlets of culverts and downspouts and energy dissipaters installed at C.M.P. outlets can significantly reduce the subsequent erosional impact of new roads. We believe these erosion control devices should be considered where permanent, culverted drainage structures must be installed.

48-6

5. In the introductory summary statement (page viii) the draft EIS states that fisheries resources would not be affected because of the scattered BLM ownership pattern. Many river basins and stream systems in the north coast region have been heavily impacted by intensive land-use activities carried out over the last several decades. Many of these impacts (channel aggradation and widening, stream-bank erosion, changes in hydrologic response characteristics, etc.) cannot be attributed to any single harvest operation or cutover unit. Rather, they are the cumulative result of a large number of individual activities which

were distributed in space and time. For example, studies conducted by the U.S. Geological Survey have documented the significance of adverse cumulative impacts on Redwood Creek and many of its major tributaries. This issue could be an important factor when timber management and road construction activities are planned for other highly impacted basins and should be formally addressed in the final Environmental Impact Statement.

We would like to commend the Bureau of Land Management for the proposed timber management parameters and mitigations which are designed to protect the soils and waters of basins where timber sales are proposed. The use of buffer strips, the emphasis of cable yarding as opposed to tractor yarding, the proposed protection for ephemeral stream channels, and the use of geotechnical investigations prior to road construction should significantly reduce the potential impact associated with timber operations.

In addition, we would like to offer the expertise we have gained during the last three years concerning timber harvesting, accelerated erosion processes and techniques for erosion control on cutover lands. We believe many of the erosion problems we are addressing in our rehabilitation program need not have occurred had sound land management practices been employed during the conduct of timber operations in these areas. Where erosional impacts are either unavoidable or unpredictable, there are many mitigating measures which may be used to lessen both short and long term environmental degradation. Many of the techniques that have been developed to control erosion on cutover lands within the park may be useful for post harvest mitigation of accelerated erosion on BLM lands, especially within the Northcoast Reasource Area.

Thank you very much for the opportunity to comment on the draft Timber Management Environmental Impact Statement for Sustained Yield Unit 13. We hope our comments will be of use to you in developing the final plan for these public resources. We look forward to the continued cooperation between our two agencies and propose that a more formalized exchange of ideas, environmental data, and resource management findings can be developed in the near future. Such an exchange will improve the effectiveness of both our organizations in managing our respective resources.

Sincerely yours

Robert D. Barbee
Superintendent

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COMMENT LETTER 48. USDI, National Park Service, Crescent City, Ca.

48-1 Issue: Memorandum of Agreement, Redwood Creek Basin.

The 10-year timber management plan model mentioned on Page 2-8 of the draft was prepared for SYU 13 by the Ukiah District. The utility of this model is its ability to provide the environmental analysis process a means of identifying potential impacts and generating meaningful quantification. A discussion of the scope of this analysis is made on Page 2-4. It is noted that this is a regional timber management environmental impact statement and not a site-specific land-use allocation or timber sale plan. The model is a viable planning aid that will be implemented to the fullest extent possible.

Pending completion of the planning process for the Scattered Blocks Planning Unit, the areas of concern identified in the March 21, 1980, Memorandum of Agreement, should they be identified as available for timber management activities, would be subject to the agreed deletions and deferrals.

48-2 Issue: Redwood National Park boundary.

The error is noted; however, minor map changes are not being made.

48-3 Issue: Blocking of spur roads.

See Chapter 2 Errata.

48-4 Issue: Drainage structures.

The proposed timber management parameters (beginning on Page 2-12) are not all inclusive. Each crossing structure must meet management requirements and consider safety, aesthetics, the environment, and economics consistent with the volume, speed, and characteristics of the vehicles and drivers that use it. All bridges and major culverts must be designed in accordance with the current edition of the "Standard Specifications for Highway Bridges," published by the American Association of State Highway and Transportation Officers (AASHTO).

48-5 Issue: Trash racks.

See response to Issue 48-4.

48-6 Issue: Cumulative impacts on Redwood Creek.

The basic proposed mitigations with site-specific considerations as stated on Page 2-12 will result in a high degree of stream protection (See response to Issue 1-2). Additionally, as stated in the response to Issue 48-1, should the completion of the land-use planning process result in the identification of BLM-administered lands for timber management, and should those lands fall within the influence of the Redwood Creek drainage, they would be subject to the March 21, 1980, Memorandum of Agreement. In addition to mitigations developed by this analysis, the land-use planning process and the intensive forest inventory (Timber Production Capability Classification (TPCC)) consider high impact areas through withdrawals and operational restrictions.

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December 5, 1980

District Manager
Ukiah District Office
Bureau of Land Management
Post Office Box 940
Ukiah, California 95482

Sirs:

This letter is in response to your draft Timber Management EIS for Ukiah District SYU 13. We would like to thank you for allowing us to review and comment on this EIS. It was apparent as we read through the statement that the problems encountered in managing for both timber production and wildlife were given a great amount of consideration and that the mitigations for the effects of timber harvest were well throught out.

A great deal of the statement deals with the importance of old-growth forest to certain wildlife species. Approximately two pages in the wildlife section of chapter 3 deal with the importance of BLM old-growth timber, considering that surrounding private lands will most likely not be maintained in an old-growth state. Due to the accepted importance of old-growth timber, we support the old-growth alternative over the proposed action or any of the other alternatives.

The old-growth alternative has the best design for having the least effect on the highest number of wildlife species. This alternative was also shown to have the least erosion per acre harvested and should therefore have the lowest effect on stream quality in the management area. As snags decompose with time, a plan is needed to allow for replacement. The old-growth proposal appears to do this by providing large snags and old age trees. Along with the wildlife attributes of the old-growth alternative, the benefits to reforestation and the economics of timber harvest make it the best choice.

Other sections of the EIS pertaining to wildlife and wild lands management seem to be well designed and we agree with them.

Thank you very much,

Doug Pomeroy

Doug Pomeroy, President
The Wildlife Society

REFERENCES CITED

ADDENDUM

Anderson, H. W., et al. 1976. *Forests and Water: Effects of Forest Management on Floods, Sedimentation, and Water Supply.* U.S. Dept. Ag., For. Serv., Pac. SW For. and Rg. Exp. Sta., PSW-18.

Harr, R. D. 1980. *Steamflow After Patch Logging in Small Drainages Within the Bull Run Municipal Watershed, Oregon.* U.S. Dept. Ag., For. Serv., Pac. NW For. and Rg. Exp. Sta., PNW-268.

Hemphill, D. V. 1952. "The vertebrate fauna of the boreal areas of the Southern Yolla Bolly Mountains, California." Unpublished Ph.D. thesis, Oregon State University.

Hiserote, B. A. and J. O. Howard. 1978. *Literature Review of Twenty-three Selected Forest Birds of the Pacific Northwest.* Portland, Ore.: U.S. Dept. Ag., For. Serv., Reg. 5.

Odum, E. P. 1963. *Ecology.* Holt, Rinehart and Winston, Inc.

U.S. Department of Agriculture, Soil Conservation Service. 1975. *Soil Taxonomy.* Agriculture Handbook 436.

U.S. Department of Interior, Bureau of Land Management. 1979a. *208 Water Quality Management Report.* Sacramento, Ca.: Ca. State Office, Bur. Land Mgmt.

-------. 1979b. "Study of surface erosion on Red Mountain." Ukiah, Ca.: Unpublished.

Zeimer, R. R. 1980. "Roots and the Stability of Forested Slopes," to be presented at the International Symposium on Erosion and Sediment Transport in Pacific Rim Steep Lands, Christchurch, New Zealand, January 1981. Arcata, Calif.: U.S. Dept. Ag., For. Serv., in press.

-------. (n.d.) "Some effects of silvicultural options on the stability of slopes." U.S. Dept. Ag., For. Serv., Pac. SW For. and Rg. Exp. Sta.

Change the McLaughlin reference on Page R-7 to read:

McLaughlin, Pat. 1979. California Department of Fish and Game. Eureka, Calif. Personal communication, BLM scoping session.

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